[illegible]
Boeing's J.S. Hurley and other grid computing backers look for broader application support. **PAGE 6**

SECURITY REWARDS
Visa U.S.A. wants to make it 'financially attractive' for software developers to write secure apps. **PAGE 7**

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'Rich Internet' tools can greatly improve the user experience at Web sites by eliminating the need to refresh pages every time users enter new data, reports Heather Havenstein.
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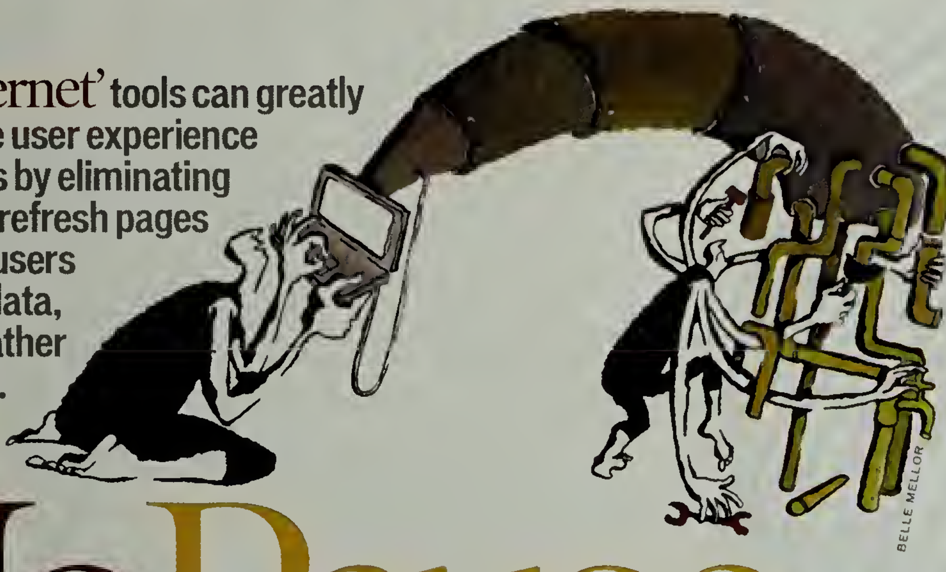
BELLE MELLOR

No Pause to Refresh

Microsoft Adopts Virtual Licenses

New policies for Windows, other products may lower software costs for virtualization users

BY CAROL SLIWA

Microsoft Corp. today plans to unveil new licensing policies that will apply to Windows Server and related products installed in virtual machine environments — no matter whether users are running Microsoft's Virtual Server software or VMware Inc.'s rival virtualization technology.

One change will let users who buy SQL Server, BizTalk Server and other Microsoft server software under a per-processor model license the products according to the number of virtualized processors they actually use, instead of the number of physical processors in their boxes.

Bob Armstrong, managing director of IT at Delaware North Cos. in Buffalo, N.Y., said he hasn't even evaluated running SQL Server in a virtual environment because of the license fees that would be required. Armstrong noted that with a virtualized quad-processor system, Delaware North would have to pay for four instances of the databases under Microsoft's previous policy, even if it used only two processors for SQL Server. "We were waiting for the

Virtualization, page 49

INSIDE

- Sumitomo Mitsui Bank's IT unit is using VMware's software to create 216 virtual servers on 14 blade devices. PAGE 49

Regional Health Exchanges Slowly Start to Share Data

BY HEATHER HAVENSTEIN

Hospitals, physician practices and health insurers are slowly forming regional data exchange networks that the federal government hopes can one day become the backbone of a national health information infrastructure.

Hundreds of regional health information organizations have been formed over the past several years. However, only a handful of the RHIOs have so far overcome financial, technical and cultural challenges to even begin pilot projects, analysts said.

Just last week, the San Diego Medical Society launched a project to create a system that can electronically link 35 hospitals and 7,000 area physicians.

Funding plans for the San Diego Medical Information Exchange Network are not yet set, and sponsors expect the planning and recruitment phase to last at least a year.

"Physicians have been slow to adopt electronic health records because of cost and

Health Data, page 16

SCOTT INDERMAUR

CIO John Wade says a RHIO "has to be a self-sustaining model."

Data Security Risks Missing From Disaster Recovery Plans

Scope of contingency programs needs to be expanded, execs say

BY JAIKUMAR VIJAYAN

Corporate officials need to consider disruptions from major information security failures when making business continuity and disaster recovery plans, security managers and analysts said last week.

Failure to do so, they added, could leave businesses dangerously underprepared to respond to infrastructure disruptions during a time of growing cyber-risks.

"Disaster recovery plans that take into account only

Security, page 16

MORE NEWS

- A proposed federal rule requires agencies to consider IT security needs in tech purchases. [illegible]
- Large users may wait before using Microsoft's new integrated antivirus and antispyware tools. [illegible]

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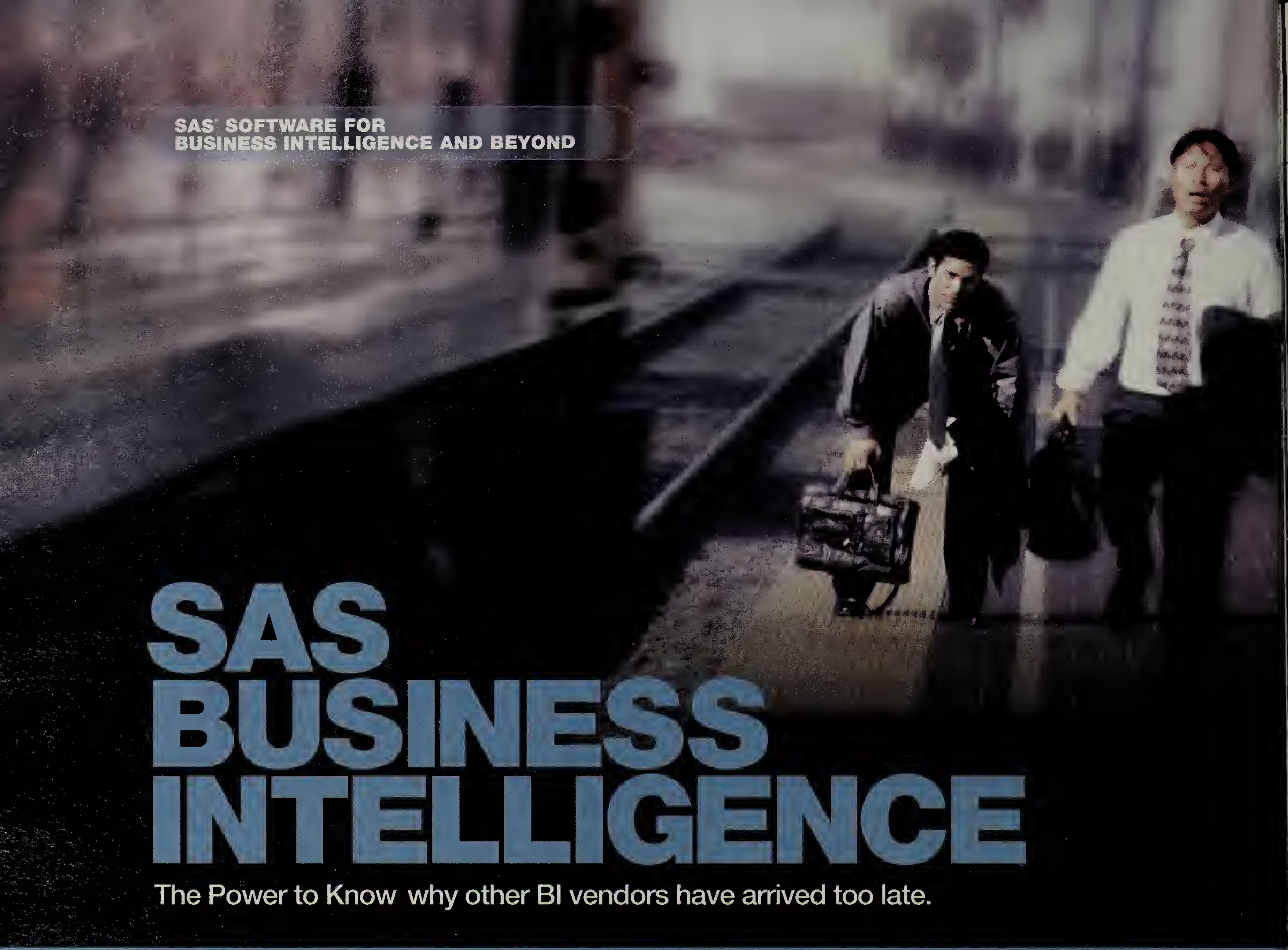

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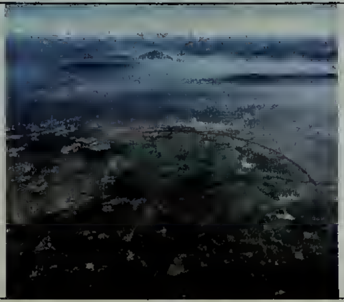

Planet-Scale Grid

In the Technology section: This week's Future Watch reports on a circular particle collider near Geneva (left) that may help researchers understand how the universe was created. It will require a data storage grid that spans several countries and at least three continents. **Page 27**

7 Steps to a Business Case

In the Management section: These days, there's no task more important than building executive support for an IT investment. Here's how to make a credible pitch. **Page 35**

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10 Sun faces an uphill climb getting Office users to switch to its new version of StarOffice.

10 Google and Sun provide scant evidence of how their alliance might benefit corporate IT in the short term.

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30 Security Manager's Journal: Quality of Life Influences Decision to Stay Put. C.J. Kelly recently got some attractive job offers, but then Hurricane Katrina hit, and now she realizes that money isn't the only key to job satisfaction.

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40 The End of Fairy Tale Beginnings. When your sponsor seems spellbound, teammates act like ogres and users vanish, your project may be doomed. IT mentor Thomas Cutting tells how to lift the curse and get everybody on your side.

42 Computerworld Honors: Relief for Nonprofit Supply Chains. Aidmatrix supply chain technology helps charitable organizations improve their ability to manage stocks of food, clothing and other supplies for people in need.

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21 David Moschella wonders whether Microsoft can weather disruptive change any better than IBM did back when Microsoft was the upstart.

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44 Bart Perkins says it takes extra effort and a new mind-set to manage risk/reward contracts, but it's worth it.

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Being Big Brother

SECURITY: In general, employers have a lot of leeway in monitoring what their employees do while on company premises and using company equipment. **QuickLink a7250**

E-discovery Eased With Virtualization

STORAGE: Ibis Consulting gets better control over its "data factory" by managing terabytes of file systems as one virtual pool. **QuickLink a7240**

What's Your Company's Privacy Strategy?

IT MANAGEMENT: Columnist Jay Cline says your company will have trouble marketing to wary consumers if it doesn't have a clear privacy strategy. Companies that "get it" will have a competitive advantage. **QuickLink 57096**

Don't Toss Old Apps – Recycle!

DEVELOPMENT: Arik Kilman explains how modernizing legacy applications can preserve business logic and data while improving the underlying technology. **QuickLink 57332**

WLAN Security

WEBCAST: John Stehman of Robert Frances Group examines key wireless LAN security issues. Recorded live at the 2005 Mobile & Wireless World conference. **QuickLink a7260**

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AT DEADLINE

Microsoft Plans Nine October Patches

After a quiet September, Microsoft Corp. plans to release on Tuesday nine security fixes in its monthly release of security updates. Eight of the patches, including at least one rated "critical," are updates to the Windows operating system. The other patch, for both Windows and Microsoft Exchange, is rated "important."

Users Warned of Symantec Flaw

Symantec Corp. has advised users of its AntiVirus Scan Engine to upgrade the software because of a critical security bug in the product. The flaw could allow an attacker to take control of an affected system, according to Symantec. Users of Versions 4.0 and 4.3 of the Scan Engine product are advised to upgrade to Version 4.3.12.

Conway Joins Board Of Salesforce.com

Craig Conway, who was ousted as CEO of PeopleSoft Inc. while Oracle Corp. was trying to take over the firm last year, has been named to fill a new seat on the board of directors at Salesforce.com Inc. The San Francisco-based company has become an increasingly fierce rival of Oracle, which now owns the PeopleSoft business. Oracle has lately increased its focus on hosted applications.

EC Appoints Expert To Monitor Microsoft

The European Commission appointed professor Neil Barrett, a British academic specializing in computer science and cybercrime, to oversee Microsoft's compliance with its antitrust ruling against the company. The commission named Barrett a monitoring trustee to provide it with technical advice on issues related to Microsoft's compliance efforts.

Grid Use on Hold for Transaction Workloads

Proponents seek more applications, standards support

BY PATRICK THIBODEAU
BOSTON

IT ISN'T HARD to find enthusiastic supporters of grid computing, such as Mike Oltman, a vice president at Bank of America Corp. who manages grids used to analyze financial risks. The grids are projected to save the bank "tens of millions of dollars" through productivity gains and reduced hardware costs, Oltman said last week.

But like most grid users, Oltman is applying the technology to compute-intensive batch-processing jobs such as financial calculations — not to business transactions.

"Grids are an architecture in search of applications," said Joe Clabby, an analyst at Summit Strategies Inc. in Boston. Clabby added, though, that he's seeing software vendors work with grid middleware providers to develop applications that take advantage of the technology.

But even as vendors begin to release products that could move grid technology into business applications (see story at right), the majority of attendees at last week's GridWorld conference here were from academic institutions, government agencies and companies that rely on grids to do the same kind of compute-intensive work that Oltman's group does at Bank of America.

Grid's Potential

Darren Pulsipher, IT director at XanGo LLC, a dietary supplement maker in Lehi, Utah, sees grids as having the potential to play a role in his company's business processes. But at GridWorld, he pointedly asked questions about the lack of progress on standards needed to accomplish that. And he also questioned whether vendors will adhere to standards such as the Global Grid Forum's emerging Open Grid Services Architecture for Web services.

"I want to be able to swap vendors in and out so I can get more-competitive pricing," Pulsipher said.

Even for technical applications, more work by vendors may be needed, according to attendees at the conference, which was co-sponsored by the Global Grid Forum and IDG World Expo Corp.

Oltman said that what slows down some of his processing jobs isn't any physical limitations posed by using 6,000 CPUs on multiple grids worldwide. Instead, he cited the need for vendors to improve their data distribution and caching capabilities so users can take full advantage of the processing gains made possible by grid installations. "There are still problems to solve," he said.

J.S. HURLEY

Many technical applications that run on grids are adapted by users from custom-built programs. IT managers say broader adoption of grid computing for business applications will require a more widespread effort by software vendors to include grid capabilities in their products.

Grid adoption "is really driven by the application," said J.S. Hurley, senior manager for distributed software and systems integration at The Boeing Co. in Chicago. Both users and vendors "just haven't focused attention on these solutions," he said, referring to business applications of the technology. Hurley noted that using grids for such purposes likely would also require business process changes within companies.

"Theoretically, it's possible to grid-enable every application," said William Fellows, an analyst at The 451 Group in New York. But he added that he thinks the jury is still out on whether grid use will move beyond repeatable batch processing jobs.

Randy Manchester, Linux systems manager at the Woods Hole Oceanographic Institution in Massachusetts, is interested in grid computing as a way to get better use out of his servers and cut IT costs.

But a key issue, Manchester said, is convincing Woods Hole's 1,200 end users — many of whom are scientists and engineers — that it's in their best interest to share computing resources with one another. **Q 57368**

Vendors Seek to Push Grids Into the Mainstream

BOSTON

SOME IT VENDORS are releasing products that are designed to help companies move grid computing into their mainstream business processes.

For instance, SAS Institute Inc. said at GridWorld that its flagship SAS 9 business intelligence, data mining and statistical analysis software now includes grid capabilities developed by Platform Computing Inc. in Markham, Ontario. SAS users could tap the grid features to improve their IT resource utilization, said Cheryl Doninger, research and development director for enterprise computing at Cary, N.C.-based SAS.

IT managers often design system resource needs around peak usage requirements. But with the capabilities inherent in grids, they should be able to reduce costs by enabling end users to tap into unused computing cycles on machines located elsewhere within their companies, Doninger said.

There's also an effort under way to make the leading open-source technology for deploying grids more palatable for corporate users. Univa Corp., a start-up that was formed last year by some of the founders of the Globus Alliance, plans to release a commercial version of that organization's Globus Toolkit late this year.

The approach being taken by Elmhurst, Ill.-based Univa is similar to that of other open-source vendors, such as Red Hat Inc. and Novell Inc.'s SUSE Linux unit. Univa plans to offer packaged grid software plus installation and support services – "all the trappings of a commercial product," said Steve Tuecke, the company's CEO.

That strategy was endorsed last week by IBM, which said it plans to support the start-up's software across its eServer hardware line, from blade servers up to the zSeries mainframes. IBM will also use the Globus technology internally.

Ken King, vice president of grid computing at IBM, noted that Linux vendors have made many corporate users comfortable with the idea of implementing the open-source operating system to run mission-critical applications. "We look at Univa as being the potential Red Hat or SUSE of grid," King said.

Another vendor that's trying to boost the number of grid-enabled applications available to users is Sun Microsystems Inc., which announced a program for helping software vendors adapt their products to grid infrastructures. The Sun Grid Readiness program gives developers access to software and hardware for modifying their applications and for developing new grid application services.

– Patrick Thibodeau

Feds Make Security a Priority in IT Purchases

Proposed rule goes into effect, requires new procurement practices at agencies

BY JAIKUMAR VIJAYAN

An interim rule published at the end of September by two federal government councils specifies new steps that IT procurement workers at federal agencies must take to ensure that information security considerations are an integral part of all technology purchases.

The proposed rule, which took effect Sept. 30, incorporates the IT security provisions of the Federal Information Security Management Act (FISMA) in the Federal Acquisition Regulation. FISMA, which was signed into law in 2002, includes requirements that federal agencies provide appropriate security protections for systems and data that are managed by contractors.

The purchasing requirements are designed to focus "much-needed attention on the importance of system and data security by contracting officials and other members of the acquisition team," according to a notice that was placed in *The Federal Register*.

Governmentwide Rule

The notice added that the government wants to provide "clear, consistent guidance" on security needs to acquisition officials and program managers and encourage stronger communication among those workers, IT security managers and CIOs. Agencies can submit comments on the rule until the end of next month.

Nancy DeFrancesco, chief information security officer at the U.S. Department of Commerce, said that codifying a set of security requirements for technology purchases "is an important step toward improving the agency's IT security posture." The Commerce Department was given an F on the 2004 federal security report card issued earlier this year by the House Government Reform Committee.

DeFrancesco noted that the agency has already incorporated existing FISMA requirements in its security policies, as well as the recommendations for secure software development that the National Institute of Standards and Technology published in June 2004. With the addition of the interim purchasing rule, the Federal Acquisition Regulation, or FAR, "now formally backs [such] efforts by establishing governmentwide expectations," she said.

But Alan Paller, director of the SANS Institute, a security research and training firm in Bethesda, Md., said that making the security requirements a part of the FAR is unlikely to be very effective.

"Systems integrators pick and choose the parts of the FAR they pay attention to," Paller said. "There are simply too many parts to pay attention to all of it. Anything that is important must be specifically spelled out in the contract specifications." FAR clauses are typically viewed by integrators and contractors as guidelines that often aren't enforced, he added.

The interim rule was proposed by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council. The civilian council includes members from various agencies and assists the General Services Administration in developing and maintaining the FAR. The defense council is a similar group that's responsible for creating regulations for acquisitions by defense agencies.

> **Security is to be considered during all phases of the acquisition life cycle.**
>
> FROM *THE FEDERAL REGISTER* NOTICE ANNOUNCING THE INTERIM RULE GOVERNING IT PURCHASES

In *The Federal Register* notice, the two councils said there is an increased need "to focus on the role of contractors in security as more and more federal agencies outsource various information technology functions."

Their proposed rule requires contracting officers to seek advice from information security specialists when buying IT goods and services. It also mandates that buyers adhere to Federal Information Processing Standards and agency-specific security requirements when making technology purchases. In addition, the rule establishes a formal definition of the term *information security*. **57361**

Visa CEO Says Laws, Incentives Needed To Improve Credit Card Data Security

Supports tougher penalties for ID theft and e-fraud

BY GRANT GROSS
WASHINGTON

Visa U.S.A. Inc. is exploring ways to reward businesses that enhance their security practices to protect against credit card fraud and online scams, the company's CEO said last week.

Visa is looking to "make it financially attractive" for software developers to write secure applications, said John Coghlan, who was named president and CEO of the Foster City, Calif.-based company in July.

During a cardholder security summit here last week, Coghlan said Visa could also make card acceptance easier for merchants that have strong security practices.

"We need a carrot as well as a stick to fight fraud," he said. "While we know that not harming customers is usually a great incentive, we are also asking ourselves, 'What other financial incentives can we create?' "

> We need to give the people ... information they can use to protect themselves from identity theft ... but we're not trying to cause or create panic.
>
> **JOHN COGHLAN,**
> **President and CEO, Visa U.S.A.**

Coghlan said that Visa supports legislation introduced in Congress that would require businesses to notify affected customers after certain data breaches, as well as a proposal to step up the punishment of criminals convicted of data theft.

Notification Is Key

Businesses should be required to notify customers of data breaches based on an "analysis of the real danger," Coghlan said. Some members of Congress are calling for customers to be notified after all data breaches, not only when there's a danger of identity theft or credit card fraud, he said.

"We need to give the people out there information they can use to protect themselves from identity theft and its consequences, but we're not trying to cause or create panic," Coghlan told the audience of Visa partners.

He also said that Visa supports legislation that would add two years in jail to existing penalties for identity theft or computer fraud.

Coghlan also called for federal data-protection laws to supersede conflicting state and local edicts. For example, 21 states have data breach notification laws that allow companies to delay notification until a law enforcement investigation is complete, while laws in Illinois and New York City don't allow for a delay, he said.

Some speakers at the conference said that businesses need to work together to ensure that customers don't lose confidence in electronic transactions as a result of data breaches.

"This really is a critical business issue," said Marge Connelly, executive vice president for corporate reputation and government at credit card issuer Capital One Services Inc. in McLean, Va. "It's not just one of the concerns of the security department or one of the concerns of the IT department."

Others called on industry groups to work together to fix credit card fraud and data theft problems on their own before lawmakers step in.

"If industry doesn't figure it out, the judges will or Congress will," said Mike Zaneis, director of congressional and public affairs at the U.S. Chamber of Commerce, a trade group representing 3 million businesses. "What you don't want is some sort of statutory obligation."

Zaneis counted seven data security bills already introduced in Congress, with more likely on the way. **57340**

Gross is a reporter for the IDG News Service.

BRIEFS

Symantec Buys BindView for $209M

Symantec Corp. has agreed to buy security compliance software vendor BindView Development Corp. for $209 million in cash. The two companies provide what officials said is complementary software to help IT operations comply with regulatory requirements such as the Sarbanes-Oxley Act in the U.S. or Basel II in Europe. The deal is expected to close in the first quarter of 2006.

IBM to Resell Globus Middleware

IBM has signed a nonexclusive agreement to license commercial releases of Globus middleware from open-source grid software start-up Univa Corp. The Univa software replaces IBM's internally developed Globus implementation. IBM plans to offer the Univa technology on its AIX- and Linux-based systems. IBM also plans to use Univa's software for internal grid projects.

HP Buys RLX for Blade Management

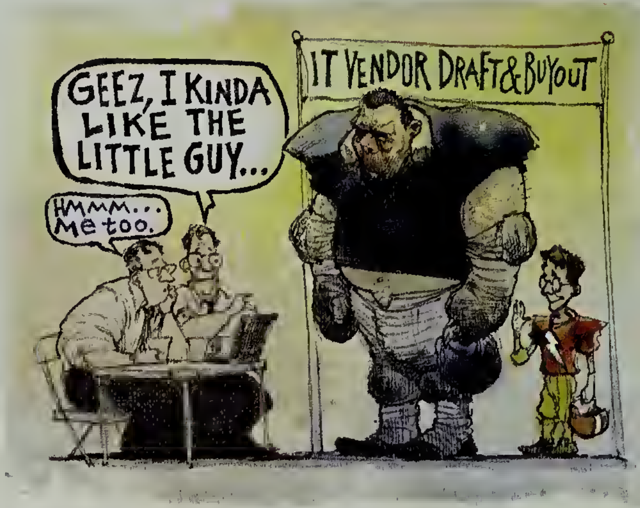
Hewlett-Packard Co. has agreed to buy RLX Technologies Inc. and plans to use its technology to improve systems management capabilities on HP blade servers running Linux (see related item at right). The deal is part of HP's strategy to buy management software to add to its product portfolio. RLX exited the blade hardware business last year to focus on its Control Tower software. Terms of the deal weren't disclosed.

Microsoft to Support PDF in New Office

Microsoft Corp. said Office 12 will include native support for PDF documents when it ships next year. Microsoft disclosed the plan to partners in Redmond, Wash. Office 12 will allow users to save Office files as PDF files using the "save as" command.

[ON THE MARK]

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY BUZZ BY MARK HALL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HMMM... Me too.
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MATTHEW FAULKNER

Hey Larry, Small Is Beautiful . . .

. . . and probably better, too. That seems to be the lesson learned by Hewlett-Packard Co., which has recently eschewed megadeals for a series of smaller ones. For example, HP's agreement to nab RLX Technologies Inc., which was announced last week, practically amounts to a rounding error for a company its size. HP didn't disclose the price it's paying for RLX. But Richard Evensen, an analyst at Technology Business Research Inc. in Hampton, N.H., estimates that HP will fork over $30 million, primarily to get the blade management software that Spring, Texas-based RLX sells. Evensen says the practice of acquiring small IT vendors to boost a company's competitive position in the market has been perfected by Cisco Systems Inc. And he argues that going forward, HP is also likely to focus on buying smaller companies with valuable intellectual property assets that it "can quickly and successfully integrate" with its existing products.

PICKUS: CA sees growth through smaller acquisitions.

Likewise, Computer Associates International Inc. has adopted a strategy of buying smaller and wiser, says Josh Pickus, who was CEO of Niku Corp. before CA bought the company in August. Now he is senior vice president and general manager of CA's Clarity division, which is named for Niku's IT governance software. CA "has retooled the way they do acquisitions," Pickus says. "It's not about squeezing profits from big, dying businesses. It's about getting growth from new opportunities." He says CA expects that the three companies it bought recently — Niku, Netegrity Inc. and Concord Communications Inc. — will bring half of its growth in the coming years.

Oracle Corp. CEO Larry Ellison likes big takeovers, as shown by his acquisition of PeopleSoft Inc. and last month's deal to buy Siebel Systems Inc. (In a similar vein, Ellison cruises the globe in the world's biggest yacht, according to *Vanity Fair* magazine.) But even he appears to appreciate small deals. According to Evensen, of the 10 acquisitions made by Oracle this year, five have involved companies with less than 100 employees.

Does the world really need yet another . . .

. . . search engine? Maybe not one like Google or Ask Jeeves, but Ash Nashed, CEO of Congoo LLC in Branchburg, N.J., has something else in mind. Congoo's namesake software searches premium sites along with the rest of the Web, then lists the premium content at the top of the search results, Nashed says. His company is working on deals with providers of general and financial news so Congoo users will get limited access to the premium areas of their Web sites. Congoo, which will go live in mid-November, will also have tools to help end users share information with one another.

NASHED: Congoo lists premium content for free.

Spyware keyloggers are trying to . . .

. . . steal your user authentication codes. Aladdin Knowledge Systems Ltd., a Tel Aviv-based security vendor, says it conducted a two-month study of 2,000 known spyware programs and found that 15% were keyloggers designed to steal user IDs, passwords, PINs and other log-in data. Doc Vaidhyanathan, vice president of product marketing at Arcot Systems Inc. in Sunnyvale, Calif., thinks his company has devised a clever way to beat the key loggers: putting a random and shuffled set of characters on an end user's display. That is, when someone wants to log into an application, the ArcotID software sends a mix of characters that the user chooses his password from. As characters get clicked, the software scrambles their order so even keyloggers that watch where a mouse goes can't determine which ones have been picked. Vaidhyanathan says that next year, Arcot will ship software that ties end-user access to specific systems. ArcotID supports both Windows PCs and Macintosh machines. Pricing varies by the number of users, but Vaidhyanathan says that a bank wanting its online customers to use the tool could pay as little as pennies per year for each client.

VAIDHYANATHAN: Stymie key loggers.

Networking appliance boosts application . . .

. . . performance by offloading processing tasks from servers. Citrix Systems Inc. in Fort Lauderdale, Fla., this week will release the Citrix NetScaler Application Switch SE, a small, rack-mounted appliance with an awfully long name. According to Greg Smith, director of product marketing at Citrix's NetScaler division, the device is the first to come from that unit since Citrix completed its purchase of NetScaler Inc. in August. The appliance is designed to free servers from having to handle a variety of processing tasks, such as encryption, connection management and data compression. Pricing starts at $17,500.

57312

Citrix's appliance juices server response.

Your potential. Our passion.
Microsoft
NAME
Mr. 7,000,000 E-mails a Day Handled by 71 Percent Fewer Servers.
ebay

"From a manager's view, the fact that we increased stability, improved operations, and reduced costs while adding so many users is very, very good."

Yuen Ho
Director of Corporate Systems and Architecture, *eBay*

Make a name for yourself with Windows Server System. Upgrading to Microsoft® Windows Server System™ makes it possible for eBay, the leading online marketplace, to consolidate its mail servers from 85 down to 25, while handling over seven million e-mails a day. Here's how: By deploying Windows Server™ 2003 with Exchange Server 2003, eBay kept its growing global workforce connected while reducing the number of mail servers and sites to support, thereby cutting basic costs per mailbox by 70 percent. To get the full eBay story or find a Microsoft Certified Partner, go to **microsoft.com/wssystem**

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Sun Links StarOffice to Microsoft Suite

Looks to win over Office users with better compatibility

BY CAROL SLIWA

SUN MICROSYSTEMS Inc. has worked to improve the compatibility of its StarOffice application suite with Microsoft Corp.'s Office. But Sun still faces an uphill climb as it tries to entice corporate users to consider the new version it released late last month.

"Microsoft is the dominant platform, and it would be very hard to have a catalyst for a major switch," said Dan Agronow, vice president of technology at The Weather Channel Interactive Inc. in Atlanta. "If you already have the investment, you're not going to throw it away."

Agronow noted that switching Web browsers is relatively painless, since the choices made by end users won't affect workers throughout their companies. But he said that because Office users share documents and content, the potential for file incompatibility remains a concern despite Sun's attempts to address the problem in StarOffice 8.

Michael Dortch, an analyst at Robert Frances Group Inc. in Westport, Conn., said he thinks Sun has dealt sufficiently with the Office compatibility shortcomings in StarOffice 8 to enable potential users to focus on cost and ease-of-use issues. "These are now fights that Sun can win more often," Dortch said.

Mike Prince, CIO at Burlington Coat Factory Warehouse Corp., has been receiving 25 to 30 Office documents per day while using a beta copy of StarOffice 8 since February. Prince said the only interoperability problems involved fonts in about six documents out of the more than 2,500 that he has opened. "With earlier versions, the compatibility wasn't as flawless as what I've observed with [StarOffice] 8," he said.

Prince plans to upgrade the Burlington, N.J.-based retailer's 350-plus stores, which have earlier versions of StarOffice, to the new release. But he expects workers at corporate headquarters who now use Office will continue to do so. "People who are Office users are not anxious to switch," Prince said. "And that's fine. We're not out to stamp out Office."

StarOffice is based on OpenOffice.org, an open-source technology shepherded by an organization that Sun set up in 2000. Sun announced its plan to improve StarOffice's compatibility with Office last November, saying the new features would first appear in an OpenOffice.org 2.0 release that is still being tested.

But with StarOffice 8, Sun is trying to distinguish its product from the open-source software by adding a configuration tool that lets IT administrators manage user settings and policies as well as a macro conversion tool, said Iyer Venkatesan, a product line manager in Sun's client systems group. Sun has also improved the software's ability to import document elements from Office and doubled the number of rows supported in spreadsheets to bring StarOffice up to par with Excel, Venkatesan said.

The previous spreadsheet disparity, along with Microsoft's Excel Solver tool, has kept a small percentage of users on Office at the University of Toronto at Scarborough. But Sun said last month that the Ontario-based school has standardized its student computing resources on StarOffice, which has been used on systems in campus computer labs and the school library since January 2004.

Philip Wright, the university's director of computing and networking services, said one of the big attractions of StarOffice is its support for Windows, Linux and Solaris. 57346

NEW FEATURES

StarOffice 8

- Improved capabilities for importing and exporting Office documents
- Support for the new OASIS Open Document file format
- Support for XForms, a W3C standard for XML-based forms
- Multipaned user interface

DHS Moves to Consolidate IT Procurement Processes

BY ERIC LAI

The U.S. Department of Homeland Security (DHS) is centralizing its procurement processes for IT support services into a massive contracting program that could make up to $45 billion worth of purchases over the next decade.

The DHS on Sept. 29 issued a request for proposals to vendors on the program, which is called EAGLE, or the Enterprise Acquisition Gateway for Leading Edge solutions. Further details about EAGLE, which was announced in August, are expected to be disclosed at two "preproposal" sessions that the DHS will hold for interested bidders on Oct. 18 in Washington. Bids for the initial EAGLE contracts are due by Oct. 31.

Marcus Fedeli, an analyst at Input Inc. in Reston, Va., said that consolidating the sprawling agency's IT services contracts into a single program should make it easier for vendors to bid on deals.

Savings Plan

Fedeli also expects that the changes will enable the DHS to attract smaller vendors that might have been reluctant to bid on contracts before. And the new program should help the agency "get some cost savings," he said. Fedeli estimated that the DHS could award up to $4.5 billion worth of contracts under EAGLE during the government's 2006 fiscal year, which began Oct. 1

DHS spokesman Larry Orluskie declined to confirm Fedeli's estimate but noted that most of the planned contracts will be multiyear deals.

In a synopsis posted on its Web site, the DHS said EAGLE is designed to provide an integrated approach for buying IT support services, which are now acquired through "a disparate collection of methods."

In conjunction with EAGLE, the DHS is also launching a $3 billion contracting program called FirstSource for buying commodity IT equipment. The list of goods that can be bought through FirstSource includes IT systems, software, networking equipment and wireless technology.

FirstSource bids must come from companies with 150 employees or fewer. As part of EAGLE, the DHS will also set aside some contracts for smaller firms and ask large companies to subcontract as much as 40% of their work to small businesses. 57373

Google, Sun Leave IT Out of Picture

EVEN CORPORATE USERS took notice last week when Google Inc. and Sun announced that they would join forces to distribute Sun's Java Runtime Environment, Google's tool bar and the OpenOffice.org desktop applications to "millions of users."

But the two vendors provided little evidence that the union will have much of an effect on corporate IT shops in the near future. The few details that emerged were tailored for the consumer market.

"I'm just curious at the moment. What are those guys going to do?" said Stephen Shaffer, director of software systems at FLYi Inc., a Dulles, Va.-based airline that flies under the name Independence Air Inc.

Eric Singleton, CIO at Hong Kong-based Tommy Hilfiger Corp., said the rivalry between Google and Microsoft could be good for IT managers. "Any time you have a market leader and another potential competitor, it keeps things sharp and results in better products for end users like me," he said.

The agreement calls for Sun to include the Google Toolbar as an option in consumer downloads of the Java Runtime Environment. The companies also plan to explore opportunities to jointly enhance technologies such as the Java runtime and OpenOffice.org.

"The corporate IT angle is what they didn't announce," said Tom Austin, an analyst at Gartner Inc. "The deeper I dug, the less there was. I honestly think they intended to do much more, but they just weren't able to come to agreement."

Austin said it isn't clear whether Google plans a major shift to Java for its desktop tools, after favoring lightweight code that's easy to download. "If anything, Google is headed in another direction with its AJAX technology," he added. "If you run Gmail [or] Google Maps, the whole architectural model that Google is following is different than the model reflected by StarOffice and OpenOffice."

But Patricia Seybold, CEO of The Patricia Seybold Group Inc. in Boston, viewed the announcement as evidence that Google is in Sun's Java camp, pitted against Microsoft.

Seybold predicted that within 30 days, Sun and Google will announce plans to freely distribute OpenOffice.org as part of Google's services – the announcement that she said was expected to happen last week.

– Carol Sliwa

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BRIEFS

Business Objects to Buy Infommersion

Business Objects SA has agreed to buy information visualization software developer Infommersion Inc. for about $40 million in cash. Privately held Infommersion sells Xcelsius, an application that can present business intelligence data from back-end systems as interactive charts, graphs and dashboards. It can package the data in PDF and PowerPoint files.

HP to Enable Netscape on PCs

Starting early next year, Hewlett-Packard Co. PC customers will be able to select America Online Inc.'s Netscape browser as their default window to the Internet. Both Netscape 8.0 and Microsoft Inernet Explorer will ship on HP PCs in the U.S. and Canada, with links in the Start menu and on the desktop of the Windows XP operating system.

Firefox Marketing Site Is Hacked Again

For the second time in three months, a Web site used to promote the open-source Firefox browser was breached. Spreadfirefox.com was shut down last week after members of the Spread Firefox community were notified that it was hit by attackers. The hackers had tried to exploit a bug in the TWiki collaboration software, which had been running on the server.

Sprint Suit Charges VoIP Providers

A unit of Sprint Nextel Corp. sued voice-over-IP providers Vonage Holdings Corp. and Voiceglo Holdings Inc., alleging that they're infringing its patents. Sprint Communications Co. claims that the companies violated seven patents on technology for processing and delivering packetized voice and data. The suit seeks an injunction against further infringement and unspecified monetary damages.

Harrah's Set to Replace Caesars BI Analytics Tools

Moves to convert Caesars IT systems by April

BY HEATHER HAVENSTEIN

As part of an effort to fuel its customer loyalty program, Harrah's Entertainment Inc. plans to replace the business intelligence tools used by Caesars Entertainment Inc., which it recently acquired.

Later this year, Harrah's will replace the SPSS Inc. analytical tools used at four Caesars properties in Las Vegas with predictive modeling and ad hoc analytic tools from SAS Institute Inc. and BI reporting tools from Cognos Inc. Harrah's uses those tools to link customer gaming and spending habits with marketing programs.

Harrah's, which completed a $5.2 billion acquisition of Caesars in June, is scheduled to begin the five-month process of converting Caesars properseties in Las Vegas to its own IT systems in December. The project is slated for completion in April, said Jason Pashko, director of database, reinvestment and analytics at Harrah's.

PASHKO says Harrah's will expand the process of how Caesars analyzed its customer base.

"Since the Harrah's strategy wins out in this merger, the Harrah's tools also follow," Pashko said. "We'll be changing out for the most part all legacy systems at Caesars and replacing them with Harrah's."

Harrah's uses SAS 9 analytical tools with proprietary algorithms running on a Teradata data warehouse. The system links information gathered about customer spending from its Total Rewards customer loyalty program to its campaign management and revenue management programs.

The company uses analytics to segment customers based on spending behavior and offer deals based on predictions for profitable future spending. Analytics also comes into play when Harrah's compares how a customer actually behaved versus the behavior that was predicted.

Fragmented Data

With the conversion, Harrah's faces a challenge in building new analytic frames of reference for the additional properties, Pashko said.

For example, before the acquisition, Harrah's had only two Las Vegas properties where customer data was compiled and analyzed to build marketing promotions. With the additional properties, officials are grappling with more fragmented demand and expect that the Harrah's BI system can meet that need. "How do you understand how a customer thinks about those properties when you have six versus two?" asked Pashko.

The process of converting Caesars' customer loyalty program into Harrah's will also require expanding the process Caesars used to analyze its customer base.

"They didn't have one central view of the customer," Pashko said. "The second we convert a Caesars property, we'll be looking at that customer from a corporatewide perspective. We think of the entire business view of the customer."

Keith Gile, an analyst at Forrester Research Inc., said many companies are looking to advanced analytics to better understand customer behavior and capture more market share.

Complexity is always an issue with predictive analytics, he said, noting that Harrah's has to consider variables like casino location, local demographics, travel dates and weather conditions. **57372**

EMC Says It's Giving the Ax to Windows-based NAS Arrays

BY LUCAS MEARIAN

EMC Corp. last week said it plans to stop selling its line of low-end network-attached storage (NAS) arrays based on the Windows Storage Server platform.

EMC's NetWin 110 and NetWin 200 product lines will stop shipping next month because of poor sales, according to an EMC spokesman. He said the system's high price tag was a key reason for the lack of sales.

The spokesman said that Hopkinton, Mass.-based EMC will soon resell low-end Windows NAS systems built by a partner, which analysts said will likely be Dell Inc.

Steve Spieler, a systems engineer at Wells' Dairy Inc. in Le Mars, Iowa, leased two NetWin 200 NAS gateways last year to run Microsoft Corp.'s Storage Server 2003 and is disappointed that EMC is discontinuing the product. He said he anticipates that EMC will continue supporting the systems.

Spieler noted that he's considering upgrading to the next version of the Microsoft software, which is expected next March. "If EMC is out of the picture, we may pick up Dell hardware in the future," he said.

> **"I don't think EMC ever had its heart in the game anyway.**
>
> **JOHN WEBSTER**, ANALYST, DATA MOBILITY GROUP

Dell sells Windows-powered NAS systems in its PowerVault line of commodity servers.

Analysts were surprised for various reasons when EMC first unveiled the Windows-based NetWin series of products in May 2004. Some noted that the systems competed with those from Dell, EMC's top reseller, and were priced starting from $6,100, over three times more than Dell's low-end PowerVault array.

John Webster, an analyst at Data Mobility Group LLC in Nashua, N.H., said that EMC built the Windows system under pressure from Microsoft. "Microsoft demanded it as a precondition to doing some other collaborative deal. But EMC had to do [it] without creating conflict with its closest partner, Dell," Webster said. He didn't disclose details about the other Microsoft-EMC deal.

The EMC spokesman and Radhesh Balakrishnan, group product manager for Microsoft's Windows Server division, both denied that any pressure was put on EMC to build the system.

Nonetheless, EMC avoided competing with its key partner by keeping its prices far higher than those that Dell was charging for its similar offerings, according to Webster. "I don't think EMC ever had its heart in the game anyway, from the standpoint of Windows-powered NAS," he said.

Balakrishnan said that although NetWin sales were on the rise this year, "it made sense for EMC and Microsoft to go with a commodity hardware player."

"While we are not happy with any given partner not being in a position to ship the solution anymore, we're excited that more and more partners are shipping it," Balakrishnan said. **57367**

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GLOBAL DISPATCHES An International IT News Digest

Asia-Pacific Warms to IT Security Outsourcing

SINGAPORE

CORPORATIONS ACROSS the Asia-Pacific region are becoming more open to outsourcing the management of their IT security systems to third parties, according to speakers at the MediaConnect Asia Security Forum here last week.

During the conference, attendees said that the process of outsourcing IT security has started in mature markets such as Australia, Japan and Taiwan. As a whole, the region is catching up with other parts of the world on security outsourcing, said Ed Elliff, who manages VeriSign Inc.'s enterprise sales and marketing activities in Australia.

Security demands generated by online applications such as e-commerce systems and Web services are prompting corporate users to hand off intrusion detection, firewall management and other security functions to third-party vendors, the speakers said.

But Andy Lee, head of the Asia-Pacific security practice at Amsterdam-based network operator ENV International NV, a unit of France Telecom SA that does business as Equant, said cost benefits are the No. 1 factor that will drive companies to outsource IT security tasks.

■ MELISSA P. VERGARA, COMPUTERWORLD PHILIPPINES

GLOBAL FACT

31%

Percentage increase in the number of .org domains in India during the first nine months of 2005, for a total of about 34,000.

Source: Public Interest Registry, Reston, Va.

BenQ Mobile Looks to Boost Siemens Phones

MUNICH

MUNICH-BASED BenQ Mobile GmbH officially began operations last week. The company was formed through the takeover of Siemens AG's mobile devices division by Taiwan-based electronics maker BenQ Corp. in June.

The company, which also includes BenQ's mobile phone unit, hopes to reverse an ongoing decline in the market share of Siemens-branded phones. BenQ Mobile is headed by CEO Clemens Joos, who previously was president of the mobile phone division at Siemens, and Chairman Jerry Wang, an executive vice president at BenQ.

Siemens paid BenQ 250 million euros ($301 million) to assume ownership of its phone operations and agreed to invest another 50 million euros ($60 million) in the company. Executives last week said BenQ Mobile has more than 7,000 workers and had annual revenue of 5.6 billion euros ($6.7 billion) last year. Citing figures from Gartner Inc., BenQ Mobile said it had an estimated 5.2% share of the worldwide mobile phone market in the first half of this year — making it the sixth-largest vendor.

■ DAN NYSTEDT, IDG NEWS SERVICE

Showa Denko Plans Facility for Tiny Disks

TOKYO

SHOWA DENKO KK, a manufacturer of storage disks for hard drives, said it plans to spend 3 billion yen ($26.5 million U.S.) to build a new research and development center that will focus on creating a coin-size device that can hold 40GB of data.

Tokyo-based Showa Denko, which produces disks for drive makers like Toshiba Corp., said the center will be built in Ichikawa City in the prefecture of Chiba, east of Tokyo. Work on the facility is due to be completed in April.

Showa Denko said that researchers at the new center will work to develop by 2010 a disk that can store 1,000 gigabits per square inch. At such a density, the planned 40GB storage capacity would fit on a 0.85-in. disk drive, according to company officials. **57292**

■ MARTYN WILLIAMS, IDG NEWS SERVICE

Compiled by Mike Bucken.

Briefly Noted

Lenovo Group Ltd., which took over IBM's PC business five months ago, is setting up a distribution structure in Africa, its first major investment on that continent. A facility in Kenya will distribute PCs and mobile phones built around components made in China. Lenovo moved its headquarters from Beijing to Purchase, N.Y., after buying the IBM operations.

■ MICHAEL MALAKATA, IDG NEWS SERVICE

ENV International last week said it has signed a five-year, $30 million contract to build an IP-based communications system for Norway's Ministry of Foreign Affairs. The system will connect the ministry's headquarters in Oslo and 84 Norwegian embassies and consulates throughout the world.

Chartered Semiconductor Manufacturing Ltd. in Singapore has named Simon Yang as senior vice president and chief technology officer, a new position reporting to President and CEO Chia Song Hwee. Yang was previously senior vice president for logic technology development and manufacturing at Semiconductor Manufacturing International Corp. in Shanghai.

■ DAN NYSTEDT, IDG NEWS SERVICE

Microsoft Unveils Antivirus, Antispyware Tools

BY JAIKUMAR VIJAYAN

An integrated antivirus and antispyware tool that Microsoft Corp. plans to start shipping soon could appeal to small and midsize businesses. But larger enterprises are likely to wait for the technology to mature more before giving it a shot, users and analysts said.

Microsoft said last week that its Client Protection technology integrates an antivirus product that it acquired in 2003 from Romanian software maker GeCAD Software with an antispyware tool that came with its December 2004 purchase of Giant Company Software Inc.

A beta version of the tool will ship by year's end, and a full rollout is slated for early next year.

Both acquired tools have been available as free downloads since the beginning of this year. The integrated product will carry an as yet undetermined price tag, said Scott Stanzel, a senior product manager in Microsoft's security technology unit. Details will become available closer to the launch date, he said.

The new tool could be of interest to small businesses and home users, said Dmitriy Kalika, IT director at Amide Pharmaceutical Inc., a Little Falls, N.J.-based maker of generic drugs. But larger companies will wait to see if Microsoft's product improves on what's already available from pure-play security vendors, he said.

"Microsoft's track record with security has not been all that great. I would rather stick with somebody else" than go with Microsoft, Kalika said.

Security Market Entree

Nevertheless, Microsoft's latest announcement is another indication of the company's ambitions in the security tools business, said Andrew Jaquith, an analyst at Yankee Group Research Inc. in Boston.

"It's a sign that Microsoft has looked at the aftermarket for Windows security and decided that it's too large for them to ignore," Jaquith said. "Antivirus and antispyware are multibillion-dollar markets, and Microsoft wants a piece of this."

Jaquith said it's ironic that Microsoft is making a move into a business that has been created largely as a result of holes in its own software.

Microsoft last week also said that it will integrate the same technology into a server-level antivirus product gained when it acquired Sybari Software Inc. last February.

Beta versions of the server product, called Antigen, will ship early next year. The tool is designed to protect Microsoft Exchange and Lotus Notes servers and Microsoft's Office SharePoint Portal Server from e-mail-borne attacks.

Microsoft CEO Steve Ballmer and security chief Mike Nash announced the products in Munich last week as part of the company's strategic security update. The event also included the formal launch of the Secure IT Alliance, a Microsoft-led group of over 30 security vendors that will work on better integration between their products and those from Microsoft.

The new products and alliances are part of the company's Trustworthy Computing initiative, which was launched in January 2002, Stanzel said. **57362**

Correction

THE NAME OF John Kish, CEO of thin-client vendor Wyse Technology Inc., was misspelled in the On the Mark column in last week's News section.

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Continued from page 1

Health Data

[because] productivity drops for at least six months," acknowledged Steve Carson, chief medical officer at the San Diego Medical Society Foundation, which oversees the fledgling RHIO.

Carson expects that hospitals will begin signing up for the RHIO over the next year to use Sun Microsystems Inc.'s Integrated Composite Application Network software. That software will give the hospitals an automated view into patient demographics, insurance eligibility and notes about emergency room visits.

The RHIO estimates that it will cost physician practices about $6 per month to use the system. Carson said the group still needs to decide how much to charge hospitals and health plans to participate and determine what types of data physicians can include in the system.

The MidSouth eHealth Alliance, a Tennessee RHIO formed a year ago by a group of hospitals, physician practices, universities, insurers and others throughout three counties, began running a pilot system two months ago.

The system has been getting live data feeds of lab results, pharmacy information and demographic details from about nine hospitals, said Mark Frisse, a professor of biomedical informatics at alliance partner Vanderbilt University in Nashville.

The MidSouth RHIO, which isn't yet using the data obtained for clinical care, hopes the pilot can demonstrate the value of the alliance to potential partners. The project was funded with a $5 million federal grant and $10 million from the state legislature.

> **"Physicians have been slow to adopt electronic health records because of cost and [because] productivity drops for at least six months.**
>
> **STEVE CARSON**, CHIEF MEDICAL OFFICER, SAN DIEGO MEDICAL SOCIETY FOUNDATION

In the long run, MidSouth aims to become a utility for hospitals and physicians, Frisse said.

Anticipated Savings

The Kansas City Regional Electronic Exchange in Missouri plans to launch its pilot project before the end of the year. The project will be undertaken with Blue Cross and Blue Shield of Kansas City, Commerce Bank NA and Saint Luke's Health System Inc., a chain of nine area hospitals. The goal is to test a system for electronically validating insurance coverage and processing claims, said John Wade, CIO at Saint Luke's.

The Kansas City exchange was formed in 2000 before the federal government began pushing the concept. It anticipates that it can save $13 million over three years by ending a paper-based claims-processing procedure that has 40 manual steps and replacing it with a regional electronic processing system with Commerce Bank, Wade said.

The founders expect that the system can be funded over the long term using the savings, Wade said.

"You can't be reliant on the government to just fund these things on a perpetual basis," he said. "[A RHIO] has to be a self-sustaining model."

The Kansas City exchange struggled mightily to get to the pilot stage. It took two years to create a governance model that then languished for another two years after a for-profit corporation acquired 14 hospitals in the region and an insurance company changed owners, he added.

Eric Brown, an analyst at Forrester Research Inc., said that while hundreds of RHIOs have been formed throughout the country, the vast majority are "people with a little bit of grant money, a mission statement and a PowerPoint stack."

Fewer than 10 RHIOs have launched pilot tests of systems for exchanging data, Brown said. Others have been struggling with the details of governance models, addressing security and privacy concerns, and trying to determine a way to pick vendors that all stakeholders will agree to use. 57366

Integrating Health Care

REGIONAL PLANS

- The Bush administration wants to make **electronic health records available** to all Americans by 2014.
- Officials from the U.S. Department of Health and Human Services **have identified regional health information organizations (RHIO) as the building blocks** for the national information infrastructure to provide universal access to electronic health records.
- RHIO participants look to RHIOs to help **eliminate some administrative costs associated with** paper-based patient records, provide quick access to automated test results and offer a consolidated view of patient history.

MORE ONLINE

For more on this topic, go to the HIPAA special coverage page on our Web site:
QuickLink s1500
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Continued from page 1

Security

the physical impact to the infrastructure are shortsighted and need to be remedied," said David Jordan, chief information security officer for Arlington County, Va.

The county now routinely incorporates cyberthreats and other potential technology-related calamities into its disaster recovery planning processes, according to Jordan.

21st Century Threats

It's important that the topic not get lost in the wake of hurricanes Katrina and Rita, said John Pironti, principal security consultant at Unisys Corp. in Blue Bell, Pa. He noted that such disasters prompt many IT operations to focus on traditional business continuity processes involving their physical assets only.

IT managers shouldn't overlook the threat that cybersecurity incidents and other electronic failures can also pose to critical infrastructure, Pironti said. Disaster recovery "is stuck in a 1970s to 1980s mindset of a mainframe, a LAN and a glass house that need to be backed up," he added.

What is needed is an "expanded perspective of what constitutes a disaster," said Bob Palmer, a vice president in IT at Lenox Inc., a Lawrenceville, N.J.-based maker of tableware and giftware.

Disaster planning "traditionally required that firms work with a single vendor who provided physical facilities and equipment in case of an emergency," Palmer said. An infrastructure failure stemming from an electronic attack would force a company to deal with security firms, Internet service providers and law enforcement agencies, among others, he said.

Adding to the complexity is the unpredictable and evolving nature of electronic attacks and potential responses to them, thus creating a difficult environment in which to conduct tests, Palmer said. As a result, he noted, disaster recovery planning needs to become "broader and [more] dynamic in nature."

Information security teams need to undertake security-threat scenario planning with workers who are responsible for business continuity programs, suggested Roberta Witty, an analyst at Gartner Inc.

The team should identify threats that could take down a company's core infrastructure or parts of it, she said. "Clearly, e-mail is a prime target, so you've got to look at how your business can continue without e-mail," Witty said. Similarly, "if you have an internal or an external security breach, the first thing you've got to understand is whether you'll be replicating the problem when you try to recover at a recovery site," she added.

Disruptions resulting from major worm outbreaks over the past few years have caused more companies to pay attention to such issues, Witty said.

Though computer security incident response teams are often ready to deal with disruptions from a security failure, more work still needs to be done, said Lloyd Hession, chief information security officer at New York-based BT Radianz, a provider of network connectivity services to financial firms.

"There's a real need for better synergy and communications between the information security team and the disaster recovery and contingency planning [function]," Hession said. "It's a question of how two groups with a similar function can work together to manage risk." 57371

Updating a BCDR Plan

IT should update business continuity and disaster recovery plans to consider security failures in order to:

- **Better prepare companies against infrastructure disruptions caused by such failures.**
- **Improve incident response.**
- **Improve risk management processes.**

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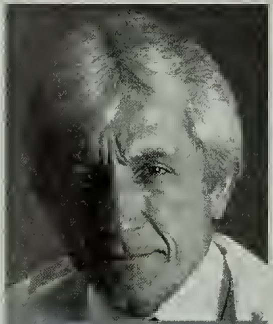
Microsoft

DON TENNANT

Past Is . . . Past

YOU'LL BE SEEING a new byline in *Computerworld* beginning this week. It's that of Eric Lai, our new West Coast reporter. Keep an eye out for his stories, because if the past is indeed prologue, you'll be reading some really good stuff.

I know, because Eric and I competed against each other in Hong Kong in the '90s, when he wrote for the technology section of the *South China Morning Post*, Hong Kong's largest English-language daily, and I wrote for the Hong Kong edition of *Computerworld*. We competed fiercely. But we admired and respected each other. And we reveled in the competition.


DON TENNANT is editor in chief of *Computerworld*. You can contact him at don_tennant@computerworld.com.

That's why, despite covering Microsoft for the better part of a decade, I could never understand the company. I had long discussions with any number of Microsoft executives, from Bill Gates and Steve Ballmer on down, and yet I could never comprehend the thought process that drove the company's actions.

I just didn't get why Microsoft always had such disdain for competition. Whereas I thrived on it and did my job better because of it, the Microsoft brass would dismiss its significance or simply refuse to acknowledge its existence — all while plotting strategies to destroy it.

So I was intrigued by last week's story about Hewlett-Packard's decision to begin to ship its PCs with both Netscape and Internet Explorer early next year [QuickLink 57263]. Giving users a choice of default browser is a laudable move on HP's part, and one that should be followed by other PC manufacturers.

What really caught my eye was Microsoft's response to the announcement. In an e-mail to *Computerworld*'s Todd R. Weiss, a Microsoft spokeswoman said the company welcomes the competition. "Ultimately, customers will choose the browser that best meets their needs," she said. "We are confident that most will continue to use Internet Explorer when they evaluate factors such as end-user functionality, site and application compatibility, developer extensibility, enterprise manageability and security backed by the processes and engineering discipline employed by Microsoft."

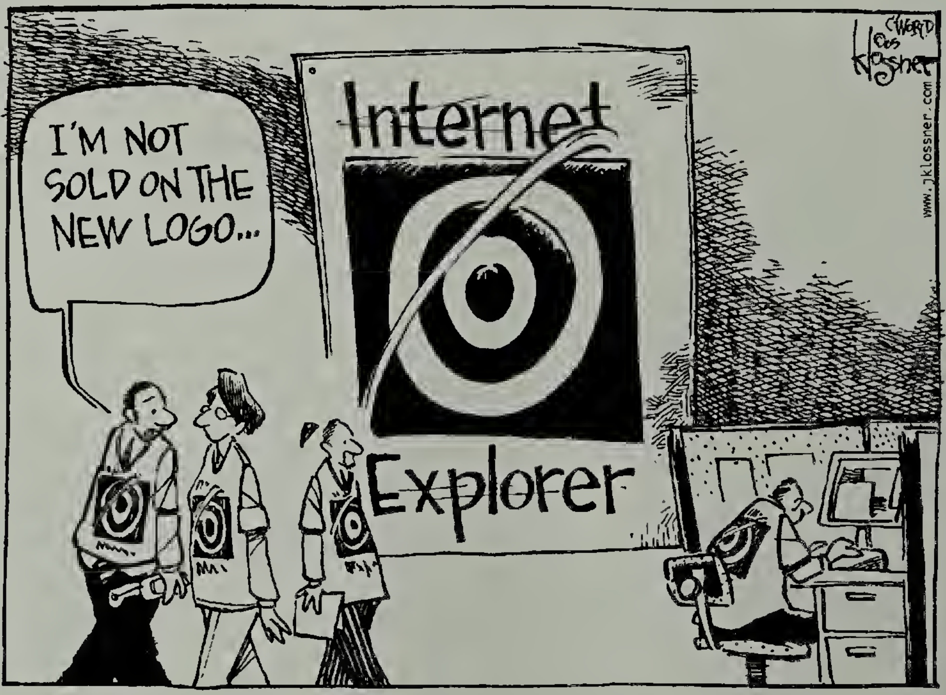
My initial reaction to that was the same as yours: "What a crock." But then I thought about it some more. Yes, the vendorspeak was mind-numbing. But if I allow my mind to be so numbed that I can't open it, then shame on me — not Microsoft.

In fact, the company's response is consistent with a subtle change there. It seems that there's more of an acknowledgment of the value of competition than in the past. Sure, you can argue that it's just lip service to appease authorities that are still scrutinizing Microsoft's compliance with antitrust rulings. Indeed, just last week, the European Commission appointed someone to monitor its compliance [QuickLink a7270].

But at some point, we all need to be willing to give even Microsoft a break. Skepticism is healthy and, with just about anything that's Microsoft-related, warranted. Still, that skepticism should be tempered with an appreciation for any organization's capacity to change for the better. Blindly assuming the worst serves no constructive purpose.

Perhaps the past isn't always prologue. Maybe — sometimes — it's just history. Yes, I'm familiar with the expression about being doomed to repeat it. But I'm getting tired of the gloom. **57318**

Don Tennant



BRUCE A. STEWART

Now Batting For the IT Team . . .

EVERY MANAGER in baseball learns the value of the players who "ride the pine" waiting for a moment of glory late in the game. Having bench strength often is the difference between postseason success and an early date with the golf clubs.

It's the same in IT management. Successful IT leaders consciously develop bench strength to take their organizations through challenges that appear unexpectedly and that require something beyond the usual mix of skills.

Bench strength is related to succession planning. A great set of players offers choices for succession — but their real value is in dealing with changed circumstances. Here are some examples to consider:

In an organization that's suddenly under market pressure, all free resources will go to meet the business challenge. Managers will have an advantage if they can call on team members with the ability to quickly analyze IT's cost structure, propose infrastructure projects that have near-guaranteed returns and prune low-value activities. Do you have team members ready to use such capabilities along with their day-to-day skills?

BRUCE A. STEWART is a former CEO and one-time senior vice president and director of executive services at Meta Group Inc. He is now an executive adviser in Vancouver, British Columbia. He can be contacted at bruce@bastewart.com.

Perhaps in another company the challenge is innovation. How flexible are your systems? How easily could you create combinations that would create new products or services? While normal times call for the standard user-sponsored project, a key bench strength is the ability to clearly articulate the art of the possible. Alongside this is the ability to prepare for more rapid change by incremental rearchitecturing efforts. A consultative approach will be needed that may not be a normal course of affairs. Who on your team is up to this?

A third organization may be entering a consolidation phase. Who on the team has the skills to institutionalize controls, management processes and practices to hone what has been built into a smoothly operating entity? The improvement work may not be as glamorous as bringing home a major project, but it's just as essential for the IT organization's long-term health.

Each of these examples reveals the need for different personal styles. Leadership team members should be chosen to reflect a variety of approaches that can be used as circumstances change. A healthy bench is built on knowing the difference between a manager's area of competence (which are based in experience and knowledge) and his key style skills (which are based in who the manager is). There is nothing wrong — and a good deal right — about tapping the "wrong" manager in organizational terms to lead an effort that he's stylistically suited to carry out.

So how do you develop a bench? Start with yourself. What is your style? Which types of challenges would be most rewarding for you, and why? How could you prepare to be called upon? Baseball pinch hitters and utility players must keep up their skills even while waiting days for the chance to play — often for a single at-bat. IT leaders looking to build their reputations when called from the bench must constantly prepare as well. A stream of warm-up projects can help in this preparation.

Most of us are fortunate enough to work in predictable settings. But careers are made when our bench skills are brought into action. Build your bench — and be ready with the right person when a challenge hits you.
57215

DAVID MOSCHELLA

When David Becomes Goliath

THE EARLY DAYS of PC industry competition were typically described in David-vs.-Goliath terms, with Microsoft the former and IBM the latter. And as in the ancient tale, the younger, more nimble upstart quickly slew the seemingly invincible, but lumbering, giant.

If you were part of the IT industry during the 1980s, you definitely remember or were even part of the story. If you are under the age of 40, you probably read about it in school or absorbed it elsewhere.

DAVID MOSCHELLA is global research director at the Leading Edge Forum, a Computer Sciences Corp. company. Contact him at **dmoschella@earthlink.net.**

Conventional wisdom has proclaimed that an arrogant, out-of-touch IBM failed to see what the PC would mean to the computer industry and that Bill Gates simply outwitted IBM's once-vaunted management team. There is certainly truth in this view. Few, if any, of IBM's leaders at the time even used a PC, let alone saw it for the disruptive force it would become.

Yet recent events might soon force us to reconsider this interpretation. Watching Microsoft try to respond to its challenges — Google, open-source, mobility, etc. — is beginning to make me think that even the smartest management may find it all but impossible to adjust to certain types of disruptive change. No one can honestly say that Gates and Steve Ballmer are asleep or out of touch (arrogant is another matter), and Microsoft may fall victim to its own little Davids.

It was only a few years ago that much of the IT industry lived in fear of Microsoft and, as was once the case with IBM, believed that the courts and antitrust law might be competition's only salvation. Way back in 1997, I wrote a column called "Tyrannosaurus Gates," noting the emergence of what seemed to be an unstoppable predator. But this was before Linux showed that the open-source movement was a new type of competitor immune from predatory pricing, and before Google demonstrated what network-centric innovation was all about.

Now, scenarios leading to Microsoft's demise are starting to look much more credible. What if China and India adopt Linux, not just on the server, but on the desktop? What if Google uses Web standards to put Word-, PowerPoint- and Excel-like capabilities into Gmail? What if the mobile phone becomes the key to the wireless, e-wallet, multimedia world of tomorrow? Isn't it usually a sign of decline when a worried giant like Microsoft starts to even consider buying much more troubled giants such as America Online?

I remember talking to Gates in the mid-1990s and being struck by the fact that he considered it a personal challenge never to let any company do to Microsoft what he did to IBM. He even acknowledged that how well Microsoft adjusted to fundamental change would be the ultimate test of his management skills. But while this certainly makes Microsoft's story different from and more personally poignant than that of IBM, the results might well be the same.

Harvard Business School's Clayton Christensen must be smiling. His seminal work, *The Innovator's Dilemma* (Harvard Business School Press, 1997), argued that in a disruptive environment, even the most alert and seemingly rational decisions may not be sufficient. Indeed, they can often be counterproductive. While the full story is still far from being written, Christensen may well be proved right. If he is, the IBMers of the 1980s might finally be let off the hook as we realize that the Davids had the advantage all along.
57221

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READERS' LETTERS

Gates Is Disingenuous About CS Grads

OH, HOW VERY LITTLE Bill Gates should be allowed to say on this topic ["Gates Worried Over Decline in U.S. Computer Scientists," QuickLink 55639]. You should clarify what he means by "qualified worker." There are lots of qualified workers out of jobs these days because of offshore outsourcing and H-1B visa holders. And it's ludicrous for him to say that students aren't seeking degrees in computer science because there is no TV show about programmers. They aren't seeking these degrees because they see that they can't get decent jobs in the field.

The class I'm signed up to teach next semester currently has two students in it. With luck, some more may sign up during the first week, but I still wouldn't expect more than five people in the class. Each of these students will spend the next few years hoping and praying to find a job when they finish their education. Chances are, most of them will not, in spite of what Gates and others are saying.

Our government is creating the end of the software industry by handing it over to India on a golden platter and allowing our corporations to rent out foreign workers. Anyone who is smart enough to go to college and earn a degree can see that. That's why there aren't more CS majors – it's pure and simple economics. I wish you would get that story straight.

Robert Manning
Software engineer,
Carson, Calif.

ONE OF THE primary reasons for youths' lack of interest in computer science is the concern that their jobs will be moved offshore or that immigrants will be brought in to perform the same work for considerably less pay. As much as I respect Gates, I think his arguments on this topic do not address the underlying cause of the problem. By advocating more H-1B visas, he virtually ensures that the objective he says we should be fostering (namely more U.S. students entering computer science) is undermined. A more enlightened approach might be to provide programs at the high school, junior college and college levels in computer programming and computer science, with scholarships available.

We must recognize that as critical software development skills are exported, we are also exporting the next generation of innovation. Deep understanding of the internal operation will one day be just as scarce as the programmers, leading to increased reliance on offshore sources for maintenance and enhancements. Any advanced techniques in requirements definition, design, development, and testing and integration will likely also come from offshore.

Jim Johnson
Director of networks,
Adsystech Inc.,
Silver Spring, Md.

GATES' loud worrying over the future of computer science in the U.S. seems more than a little disingenuous when his own company is busy exporting the very jobs on which new computer science grads would have cut their teeth. Students aren't blind. They simply don't see a long-term future in a U.S. computer science career.

I marvel at the hubris of Gates and professor Maria Klawe attempting to recast the decline as a simple public relations problem. Yes, the decline is a public relations problem, but it's also a social one!

A. Blake
Atlanta

COMPUTERWORLD welcomes comments from its readers. Letters will be edited for brevity and clarity. They should be addressed to Jamie Eckle, letters editor, Computerworld, PO Box 9171, 1 Speen Street, Framingham, Mass. 01701. Fax: (508) 879-4843. E-mail: letters@computerworld.com. Include an address and phone number for immediate verification.

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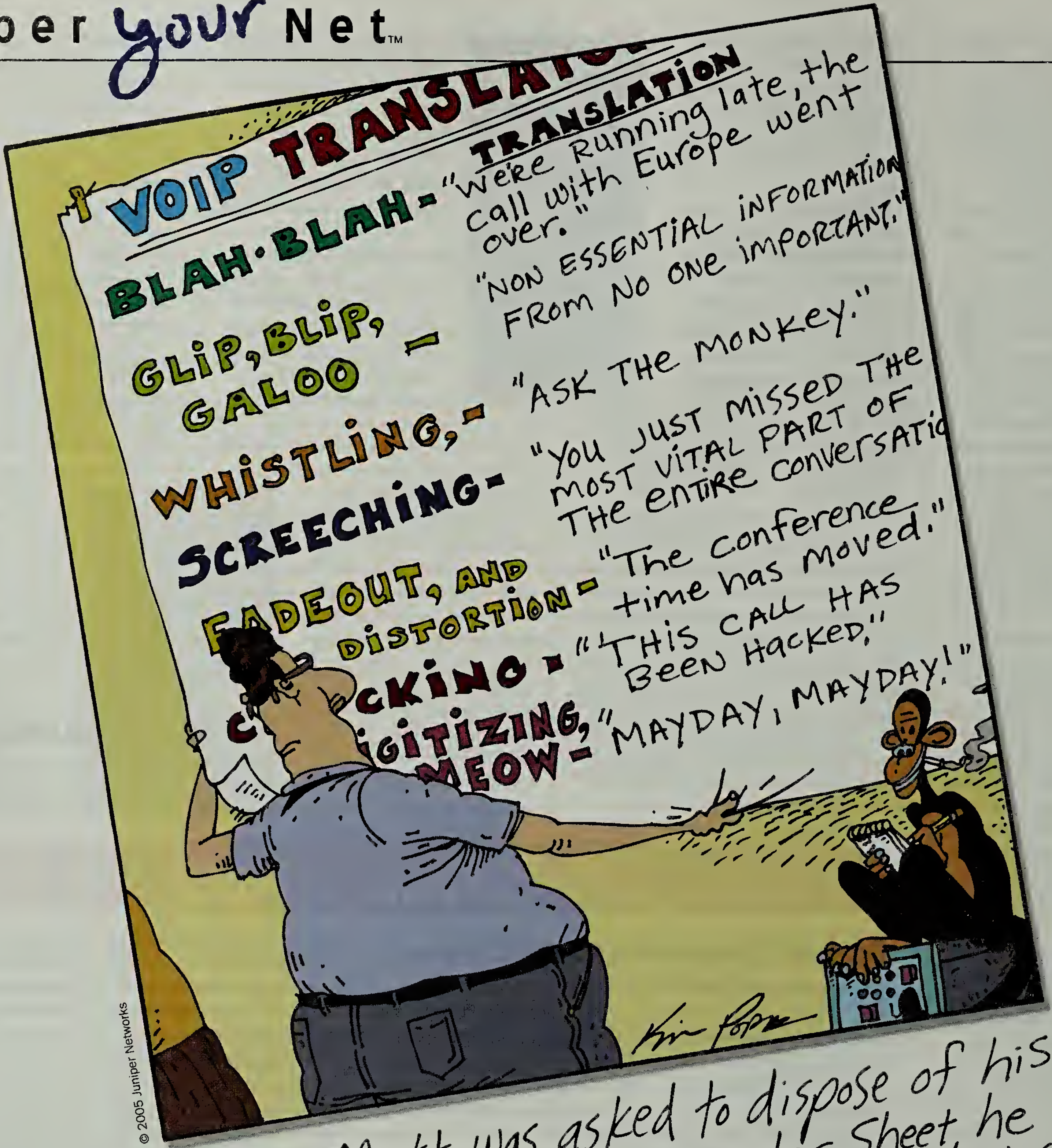
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TRANSLATION
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GLIP, BLIP, GALOO - "NON ESSENTIAL INFORMATION FROM NO ONE IMPORTANT."
WHISTLING, - "ASK THE MONKEY."
SCREECHING - "YOU JUST MISSED THE MOST VITAL PART OF THE ENTIRE CONVERSATIO
FADEOUT, AND DISTORTION - "The conference time has moved."
C CKING - "THIS CALL HAS BEEN HACKED."
IGITIZING, MEOW - "MAYDAY, MAYDAY!"

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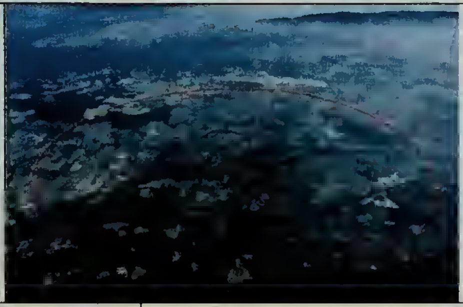
Q&A

Robots Move Into Corporate Roles

Mobile robots are ready to play a role in enterprise security, building automation and control, and other areas, according to ActivMedia CEO Jean Dietsch. **Page 26**



FUTURE WATCH

Planet-Scale Grid

A circular particle collider near Geneva may help researchers understand how the universe was created and will require a storage grid capable of processing a vast flood of data. **Page 27**

SECURITY MANAGER'S JOURNAL

Quality of Life Influences Decision to Stay Put

C.J. Kelly got some offers for big-bucks jobs just about the time that Hurricane Katrina hit. That backdrop of human suffering was influential as she made her decision. **Page 30**

No Pause to Refresh

Rich Internet applications improve the user's experience over the Net and skip the deployment and maintenance hassles of client/server apps.

BY HEATHER HAVENSTEIN

THE INTERNET HAS represented a huge leap forward for many organizations, allowing them to expand the reach of their applications to remote workers, customers and suppliers. Unfortunately, limitations in browsers have meant a step backward for the user experience compared with client/server applications.

But a burgeoning group of users is solving this dilemma with new tools designed to preserve the rich content and interactive features of the desktop in "rich Internet" applications that can be accessed via a thin client. Rich Internet applications are designed to provide enhancements to usability without the deployment and maintenance headaches of client/server applications.

The new tools essentially eliminate the need to refresh a Web page every time a user enters or receives new data. They allow businesses to more easily move existing client/server applications to the Web or build new Web applications. Companies are using the tools for e-commerce and call center applications that require complex interactions with users. They also use them for applications that need to run on various devices.

Traditional HTML-based applications are built as static, page-based applications that require an HTTP request to a server every time data needs to be refreshed. However, applications on the Web often require heavy interaction with users. For example, a customer service application could require a call center representative to enter information from a customer while also accessing a technician's service schedule. These types of applications can't work efficiently with the latency that comes with constant page refreshes.

What Makes Them Rich

Key characteristics of rich Internet applications:

- Must be accessed by the user without a separate installation process
- Must support local application processing on the client
- Must support an event-driven user interface that extends beyond the traditional page request/response model of HTML
- Must support connectivity and synchronization with server-side processing
- Must be usable in bandwidth-constrained network environments like dial-up
- Should provide a "high-fidelity" user interface that matches the look and feel of a desktop GUI
- Should operate efficiently within multiple browsers and on multiple operating systems

SOURCE: GARTNER INC., STAMFORD, CONN.

Rich Internet applications include a rendering engine in the client that can cache data and communicate back and forth with the server while still displaying the Web page for the user. The engine can process user requests to provide a more responsive user interface and fewer round trips to the server than HTML-based applications do. While HTML is a simple straightforward language for building static applications, adding any type of interaction within the user interface often requires a lot of scripting from developers. Rich Internet application developer tools are designed to plug into popular integrated development environments (IDE) while providing the windows and tabs needed to add interactive features without a lot of coding.

Keeping the Record Straight

When SunGard Data Systems Inc. wanted to move its client/server mutual fund shareholder application to the Web, the company opted to use rich Internet technology to migrate the system.

The company's Investar-One shareholder recordkeeping system for mutual fund clients has 400 to 500 screens, and using traditional HTML programming to build the graphical user interface (GUI) for the Web would have taken too long and wouldn't have delivered adequate content, says Mark Judah, chief technology officer at SunGard's Investar-One business unit in Wayne, Pa.

"There's a lot of activity that takes place with financial market interfaces, and users need a lot of information on the screen that . . . can be quickly interpreted," Judah says. "Traditional browser-based technology is very much HTML-based. Where you have a simple Web page that is thin, however, you're not able to obtain as rich a user experience as might be required. In just porting over our traditional fat-client GUI to a browser-based presentation, we would have had to redesign most screens."

Instead, SunGard in early 2005 began using technology from Boston-based Nexaweb Technologies Inc. to migrate Investar to the Web, a project that the company plans to roll out into production in the second half of next year. Nexaweb's technology includes developer tools that can be plugged into most Java IDEs to build Web application user interfaces with XML instead of HTML. Developers can choose to have the code execute in the client or on the server. The XML engine in Nexaweb 4.0 can process most user interface operations locally, allowing data to be incrementally updated on the client without refreshing pages.

"We will be able to take our GUI application in its entirety and port it without having to do a lot of redesign," says Judah. "We won't have any installation on the desktop, and by avoiding ongoing maintenance on the desktop, we will continue to reap cost-savings rewards."

By 2010, at least 60% of new application development projects will include rich Internet application technology, according to IT research firm Gartner Inc. In addition, at least 25% of companies using rich Internet applications in their development shops will rely primarily on the technology for developing Web applications, Gartner notes.

Optimal Payments Inc., a Montreal-based electronic payments processor, used the Flex presentation server and programming model from Macromedia Inc. in San Francisco last year to move a custom-built customer support application to the Web. The application is used by 50 customer support representatives to log and route trouble tickets.

With Flex, Optimal Payments was able to move the application in three months with only a single developer, says Dimitrios Gianninas, rich Internet application developer at the company.

"It just cost the salary of one developer to get it done," he says. "With the other application, we had to buy it, pay for maintenance and fly in people to customize it. The costs were enormous compared to what we accomplished with Flex." Optimal Payments is developing two applications with Flex — one for adding new merchants and another to allow its finance department to perform residual sales calculations — and it plans to move all new development from JavaServer Pages to Flex, Gianninas says.

ATLAS TO SUPPORT AJAX

MICROSOFT CORP. became the latest vendor maneuvering to tap the rich Internet application market last month when it gave a developer preview of Atlas, the code name for a new Web client framework to allow developers to build AJAX-style applications. Atlas will include extensions to ASP.Net 2.0 that can be accessed through Visual Studio 2005.

Microsoft is targeting companies such as Southern Co., an Atlanta-based power company.

According to Michael Peters, a technical consultant at Southern, the rule of thumb at the company is this: If the application needs a rich interface, it stays client/server. If not, the developers build a Web application.

Southern started moving applications to the Web more than four years ago. The company has two client/server applications with more than 150 screens that it's converting from SQLWindows to .Net-based client/server, rather than Web-based applications, because it's less expensive to do the line-by-line conversion than to rearchitect the applications, says Peters.

Gregory Floyd, a technical consultant at Southern, said that with AJAX, developers can write less than an eighth of the code now needed for building rich interfaces. AJAX is most useful with retrieving information for users in near real time, he says.

– Heather Havenstein and Carol Sliwa

Rebuilding E-mail

EarthLink Inc., an Atlanta-based Internet service provider, is using open-source tools from Laszlo Systems Inc. to rebuild its HTML-based Web e-mail application into a rich Internet application, says John Foltz, EarthLink's product manager for e-mail and for the rich Internet application.

"Web mail in general — including ours — is built with HTML, which means it looks and behaves like a series of Web pages. It makes it awkward to use and slow," he says. "Rich Internet technology will allow users to send or receive mail in the background while they're doing something else. Once the application loads up in your browser window . . . there are no more page refreshes."

EarthLink plans this month to wrap up development of the beta product of its rich Internet application, which already has 3.5 million users.

Vendors, meanwhile, are readying rich Internet tools with an eye toward the developer. San Mateo, Calif.-based Laszlo, which markets an open-source platform for developing rich Internet applications, in July announced plans to team with IBM to propose an IDE project to the Eclipse Foundation Inc. that would allow developers to use the open-source Eclipse tools to build rich Internet applications. Laszlo debuted its open-source OpenLaszlo tools this month, and they have been downloaded more than 60,000 times, according to company officials.

Peter O'Kelly, an analyst at Burton Group in Midvale, Utah, says Asynchronous JavaScript and XML (AJAX) and other rich Internet programming techniques represent a tacit acknowledgement that programming HTML pages was "cruel and unusual punishment" for developers.

"It used to require some very advanced development to build Web applications," he says. "Mainstream developers can take advantage of these new capabilities without being annoyed with things like the fact that Internet Explorer does things one way but Firefox does it another way. It is about raising the level of abstraction, so developers don't have to understand the plumbing."

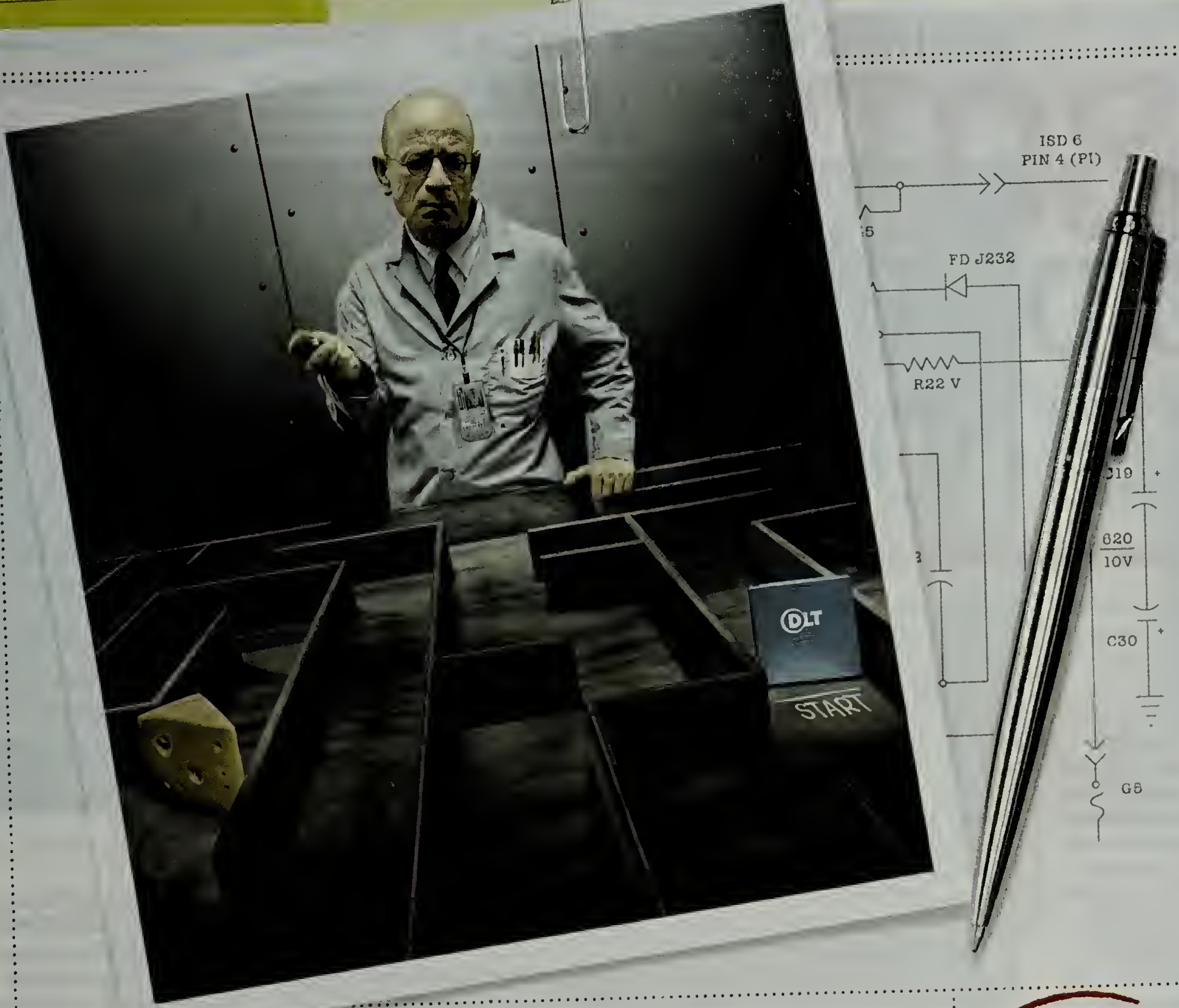
Macromedia last week announced plans to restructure its licensing model for its Flex programming tools and eliminate the requirement that enterprises must buy its presentation server in order to get the development software, says Jeff Whatcott, vice president of product management.

The company also announced new technology that will support data streaming, so a user could, for example, get immediate notification when a stock trade clears or another transaction is processed.

In addition, the technology is designed to allow users to do contextual collaboration, he says. For example, a user looking at a business intelligence dashboard could chat online with the analyst who prepared the data for the dashboard, and the two users could work together to change data, Whatcott says.

Q 57102

SDLT 600 MEMORY TEST



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ROBOTS MOVE INTO Corporate Roles

ActivMedia's Jeanne Dietsch says mobile robots make good corporate citizens.

Although robots have long been essential to manufacturing, other industry sectors have been slow to adopt the machines. Companies like ActivMedia Robotics LLC are trying to change that. ActivMedia designs intelligent mobile robots, sensing systems and controls for enterprise use. The Amherst, N.H.-based firm has more than 2,000 units in the field, says CEO **Jeanne Dietsch**. *She spoke about robots and their future in IT with* Computerworld *national correspondent Robert L. Mitchell.*

What is a mobile robot? Think of a PC connected wirelessly with wheels on it. That's what it is, with motors connecting the wheels to the PC. Inside we have a server and a client [and] an off-board client, which we call the command and control system.

What technology advances have made mobile robots more viable for business use? You can pull [the robot] out of the box, and you start the robot learning the building by driving it around with a joystick. As soon as it has learned the building and created a floor plan, it can drive around on its own. We could not have done that four years ago.

You sell the PatrolBot as a roving security device that includes audio, a navigational laser, a video camera and other sensors. Why would I use that in the enterprise? You would use a robot to increase reliability, to increase flexibility, to increase redundancy, to provide better situational awareness to the staff, to reduce risk to the staff and to save money.

[PatrolBot] provides situational awareness to the other guards. To be looking at something and to see the floor plan, see where the robot is in the floor plan and what it's looking at perhaps from a 360 view and a pan-tilt-zoom view, that gives you what's called situational awareness.

How does PatrolBot find and interact with an intruder? The standard PatrolBot has two-way audio. It also has text to speech, and it can play WAV files. The video is pan-tilt-zoom, and we have a 360-degree camera. You can also get a configuration of the robot that will flash startle lights. One thing security loves is that you can see the people walking by the robot because of the laser, even in the dark. So you can see their footprints moving across the floor plan.

Jeanne Dietsch

TITLE: CEO

COMPANY: ActivMedia Robotics LLC

LOCATION: Amherst, N.H.

ACCOMPLISHMENTS: Dietsch co-founded ActivMedia Robotics in 1995. She helped develop the Pioneer, a robot created collaboratively with Real World Interface, which later became the research division of iRobot Corp. She oversaw the development of PatrolBot in 2004 and the company's focus on software development tools for robotics. Previously, she founded ActivMedia Research, an e-commerce market research company, and led Talmis, an IDG market research start-up.

The robot can set up what's called a laser checkbox, and if anyone walks through this particular area, the robot will notify the guard. Some of the robots have some sort of access control system, a card reader or iris scanner on them. So they can say, "You must identify yourself now."

And if you don't? Well, it has alerted central control, so if central control doesn't get an identifying tag, depending on the facility, all the doors can lock or someone can come racing down and get you.

What other tasks can it perform? For insurance purposes, you have to check tags on fire extinguishers and defibrillators to make sure that they are in operation. The robot can go there, automatically zoom in [and] take a high-resolution photograph. Each of those photographs is time- and location-stamped.

If you have the system integration module, you can link up with a third-party control system. In that case, if it's integrated, the Honeywell alarm can call the robot to the door. Eventually you'll be able to follow the person, but now it just tells the person, "You must swipe your card." It can notify the alarm system of its location.

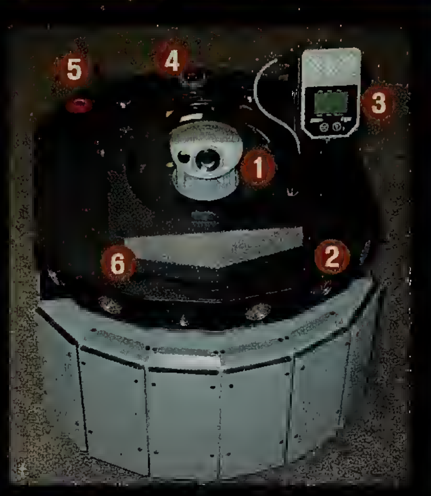
What role can robots play in the data center? Energy optimization, RFID reading for tracking servers and assets within the center, surveillance and troubleshooting, particularly in remote facilities. Also, you may have alarms coming from within the [computer monitoring] systems, and the robot can be called automatically to go and investigate.

Can it communicate with other IT systems? We've set ours up to communicate with text or XML via our ARCL command language. This is good because it's compatible with both embedded controllers and PCs. Many building-automation systems are functioning with embedded controllers.

If you're going to use it for energy conservation, it's got to be talking to the rest of the building, to your HVAC and the rest of the systems. To move around the building, it may have to talk to your elevators, to electronic doors.

In the developer software that comes with it, there's a system integration module that uses simple text that just permits the system to send data into your security system or your Tivoli system or whatever. The interface development module takes things like the floor plan and allows you to export those and the video from the robot into your own application.

ActivMedia's PatrolBot



① Pan-tilt-zoom camera
② Range-finding sensors
③ Gas sensor
④ 360-degree video camera
⑤ Wireless LAN antenna
⑥ Microphone

What does it cost to buy, configure and maintain a mobile robot? It would start around $40,000. There is a 10% per year maintenance fee. We recommend that you clean the laser cavity and the laser once a month. Quarterly, you should change the batteries and do some other cleaning.

How do you envision these robots working with building-automation systems? People are most interested right now in energy optimization because energy is such an issue. The thing people like most is that the robot is moving in the middle of the space where people move. You're not going to hang six sensors in the middle of a hallway, but that's really where you want to know what the temperature is. That's why people like the robot. It goes where the people go.

What will be the next big thing in mobile robot technology? The forefront is in outdoor three-dimensional navigation. We are working on things like, How do I follow a road in a private facility?

For the IT community, what they'll want is better manipulation [of objects]. Now we're doing some simple manipulation, what's called a one or two degree of freedom manipulation. Right now we can transport things, we can carry, we can sense, we can look. But being able to adeptly manipulate things is what the next challenge is. 57101

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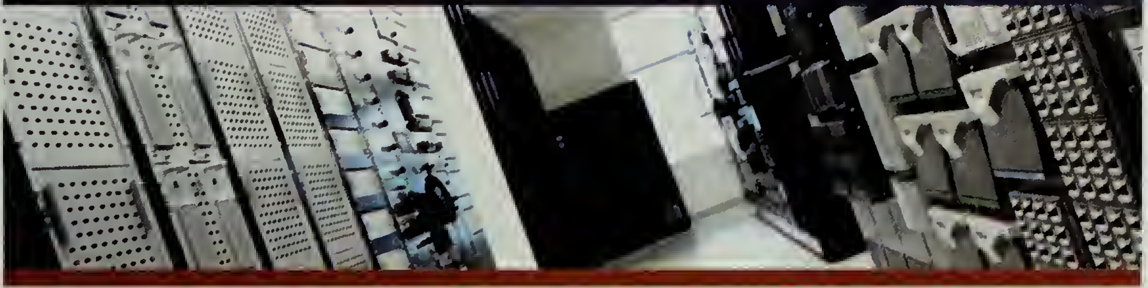

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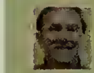
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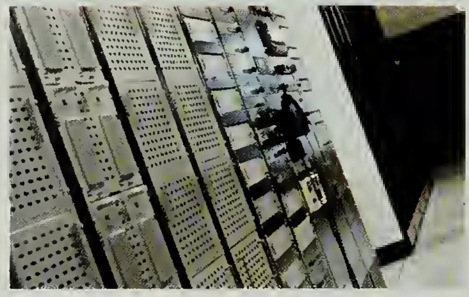

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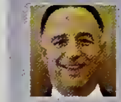
André Mendes
Chief Technology Integration Officer, Public Broadcasting Service

> "... the premier event in the storage industry ..."



Frank Enfanto
Vice President, Operations Delivery & Information Security, Blue Cross Blue Shield of Massachusetts

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Conference At-a-Glance *(subject to change)*

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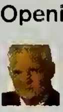
MONDAY, OCTOBER 24

Registration Open 8:00am - 8:30pm

9:00am – 9:30am	Breakfast
9:30am – 11:30am	**Concurrent Pre-Conference Tutorials and Primers**
10:45am – 11:30am	**Golf Exhibition with Long Drive Champ Dan Boever**
11:30am – 1:00pm	Luncheon
12:00pm – 5:00pm	**Pre-Conference Golf Outing**
1:00pm – 5:25pm	IDC **Storage Analyst Briefing**
1:00pm – 5:25pm	**Concurrent Sessions (IT End-User Case Studies, SNIA Technical Tutorials, Deployable Solutions Tracks)**
4:40pm – 6:30pm	**End User Town Hall Meeting**
5:00pm – 7:00pm	**Speed Dating with IDC: A Channel Partner Networking Event at SNW**
7:00pm – 9:00pm	Welcome Reception

TUESDAY, OCTOBER 25

Registration Open 7:00am - 8:00pm

7:00am – 8:00am	Breakfast
8:00am – 8:15am	**Opening Remarks**
8:15am - 9:30am	**Opening Visionary Presentation**
9:30am - 10:00am	 **21st-Century Infrastructure for Our Information-Intensive World** Joe Tucci, President and CEO, EMC Corporation
10:00am - 10:15am	Break
10:15am - 10:45am	**Enabling Net-Centric Operations: Technology Supporting America's 21st Century Warfighters** Lieutenant Colonel Karlton Johnson, USAF & U.S. Army War College Class AY06
10:45am - 11:15am	**Five for Five: Top Five Predictions for Networked Storage Over the Next Five Years** Jayshree Ullal, Senior Vice President, Data Center, Switching and Security Technology Group, Cisco Systems, Inc.
11:15am - 11:45am	**SAN Implementation Case Study** Al Todd, Senior Vice President, IT Services Division, Pacific Capital Bancorp

For more information and to register, visit www.snwusa.com or call 1-800-883-9090

Conference At-a-Glance *(subject to change)*

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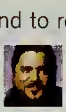
11:45am - 12:30pm	 **"Disaster Recovery Perspectives" End User Panel Discussion** Moderated by Jon William Toigo, Founder & Senior Analyst, Toigo Partners International LLC
12:45pm - 2:00pm	**Lunch Presentation by Steve Duplessie, Founder and Senior Analyst, Enterprise Strategy Group**
2:10pm – 5:40pm	**Concurrent Sessions (IT End-User Case Studies, SNIA Technical Tutorials, Deployable Solutions Tracks)**
5:40pm – 8:40pm	**Expo with Dinner and Interoperability & Solutions Demo**

WEDNESDAY, OCTOBER 26

Registration Open 7:00am - 7:30pm

7:15am – 8:15am	Breakfast
8:15am – 8:30am	**Opening Remarks**
8:30am - 9:15am	**Opening Visionary Presentation**
9:15am - 9:45am	**ILM Is More Than Just Storage** Mark Canepa, Executive Vice President, Data Management Group, Sun Microsystems, Inc.
9:45am - 10:15am	**Delivering Digital Media for the World's Largest Portal** Ken Black, Global Storage Architect, Yahoo!
10:15am - 10:30am	Break
10:30am - 11:00am	**Business-Savvy IT: The Primacy of Data Management** Yogesh Gupta, CTO, Computer Associates
11:00am - 11:30am	**Beyond 0's and 1's – The Leadership Role in Strategic Planning** Yuri Aguiar, Chief Technology Officer, Ogilvy & Mather Worldwide
11:30am - 12:15pm	**"End User Perspectives" Panel Discussion** Moderated by Steve Duplessie, Founder and Senior Analyst, Enterprise Strategy Group
Noon - 12:15pm	**"Best Practices in Storage" Awards Ceremony**
12:15pm - 2:00pm	Lunch
12:15pm – 7:15pm	**Interoperability & Solutions Demo**
2:10pm – 5:40pm	**Concurrent Sessions (IT End-User Case Studies, SNIA Technical Tutorials, Deployable Solutions Tracks)**
4:00pm – 7:00pm	**Expo Open** Cocktail Reception in Expo begins at 5:30pm
7:00pm – 9:30pm	**Gala Evening with "Best Practices in Storage" Awards Program, Dinner & Entertainment**

THURSDAY, OCTOBER 27

Registration Open 7:30am - 10:30am

7:30am – 8:30am	Breakfast
8:30am – 12:00pm	**Concurrent Sessions (IT End-User Case Studies, SNIA Technical Tutorials, Deployable Solutions Tracks)**
12:00pm	Conference Concludes

> "... the greatest thing about being at SNW is the ability to network with peers ..."

Sasan Hamidi
CSO,
Interval International

> "... SNW is so concentrated that it gives you a good view of the overall industry ..."

Jeff Pelot
CTO, Denver Health and Medical Center

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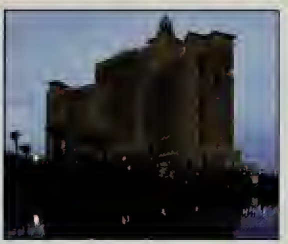
For details contact Chris Leger at 1-508-820-8277



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Please affix your business card to this space prior to submitting your application. Applications submitted without business cards will not be processed.

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Attendee Profile: This section MUST be completed by IT End-Users and Channel Partners/Integrators/Consultants only (optional for all other registrations) in order to process your application.

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- ☐ Vice President
- ☐ Director
- ☐ Manager/Other IT Manager
- ☐ Supervisor

BUSINESS MANAGEMENT
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- ☐ CFO, Controller, Treasurer
- ☐ Executive VP, Senior VP, VP, General Manager
- ☐ Director, Manager
- ☐ Other Corporate/Business Manager

Number of employees in your entire organization (ALL locations)
- ☐ 20,000 or more
- ☐ 10,000 - 19,999
- ☐ 5,000 - 9,999
- ☐ 1,000 - 4,999
- ☐ 500 - 999
- ☐ 100 - 499
- ☐ 50 - 99
- ☐ Less than 50

What is your organization's annual IT/IS budget for all IT/IS products?
- ☐ $1 Billion or more
- ☐ $500 Million - $999.9 Million
- ☐ $100 Million - $499.9 Million
- ☐ $50 Million - $99.9 Million
- ☐ $10 Million - $49.9 Million
- ☐ $1 Million - $9.9 Million
- ☐ $500,000 - $999,999
- ☐ $250,000 - $499,999
- ☐ $100,000 - $249,999
- ☐ Less than $100,000

What is the estimated annual revenue of your entire organization?
- ☐ Over $10 Billion
- ☐ $1 Billion - $9.9 Billion
- ☐ $500 Million - $999 Million
- ☐ $100 Million - $499 Million
- ☐ Less than $100 Million

What is the one item that best describes your involvement in the IT purchase process?
- ☐ Authorize/approve purchase
- ☐ Evaluate/recommend products, brands, vendors
- ☐ Specify features/technical requirements
- ☐ Set budget for expenditures
- ☐ Determine need to purchase
- ☐ Create IT strategy
- ☐ All of the above

Would you like to receive information about playing in the golf outing on Monday, October 24th?
- ☐ Yes
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- ☐ No

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Cancellation Policy (All of the following require **written notification** by September 27, 2005.)
In the event of cancellation, the registrant has three options:
1) He or she may substitute another attendee for this conference.
2) He or she may transfer this registration to the Storage Networking World Spring 2006 conference.
3) The registration fee will be refunded, less a $250 service charge (if written notice is received by September 27, 2005.)

Please send cancellation requests via email to: snwreg@computerworld.com

Planet-scale GRID

A particle collider leads data grid developers to unprecedented dimensions.

FUTURE WATCH

BY PATRICK THIBODEAU

IN 2007, scientists will begin smashing protons and ions together in a massive, multinational experiment to understand what the universe looked like tiny fractions of a second after the Big Bang. The particle accelerator used in this test will release a vast flood of data on a scale unlike anything seen before, and for that scientists will need a computing grid of equally great capability.

The Large Hadron Collider (LHC), which is being built near Geneva, will be a circular structure 17 miles in circumference. It will produce data in the neighborhood of 1.5GB/sec., or as many as 10 petabytes of data annually, 1,000 times bigger than the Library of Congress' print collection. The data flows will likely begin in earnest in 2008.

TONY DOYLE

As part of this effort, which is costing about 5 billion euros ($6.3 billion U.S.), scientists are building a grid using 100,000 CPUs, mostly PCs and workstations, available at university and research labs in the U.S., Europe, Japan, Taiwan and other locations. Scientists need to harness raw computing power to meet computational demands and to give researchers a single view of this disbursed data.

This latter goal — creating a centralized view of data that may be located in Europe, the U.S. or somewhere else — is the key research problem.

Centralizing the data virtually, or creating what is called a data grid, means extending the capability of existing databases, such as Oracle 10g and MySQL, to scale to these extraordinary data volumes. And it requires new tools for coordinating data requests across the grid in order to synchronize multiple, disparate databases.

"It's all about pushing the envelope in terms of scale of robustness," says Tony Doyle, project leader of Grid Particle Physics (GridPP) project, a U.K.-based scientific grid initiative that's also part of the international effort to develop the grid middleware tools.

Researchers believe that improving the ability of a grid to handle petabyte-scale data, split up among multiple sites, will benefit not only the scientific community but also mainstream commercial enterprises. They expect that corporations — especially those involved in fields such as life sciences — will one day need a similar ability to harness computing resources globally as their data requirements grow.

"If this works, it will spawn companies that will just set up clusters to provide grid computing to other people," says Steve Lloyd, who chairs the GridPP Collaboration Board, based at the Rutherford Appleton Laboratory in Oxfordshire, England. GridPP is working with the international team to develop the grid the LHC will use.

CERN, the European laboratory for particle physics, is leading the LHC and its grid effort. From CERN's facility near Geneva, the data produced by the particle accelerator will be distributed to nine other major computing centers, including the Brookhaven National Laboratory and the Fermi National Accelerator Laboratory in the U.S., says Fabio Hernandez, grid technical leader at one of the major project sites in France.

As part of a backup plan, each of the 10 centers will have two-tenths of the total data, so that each one will be responsible for its own 10% plus a duplicate of the 10% held by another center, says Hernandez. In total, some 150 universities and research labs worldwide will be connected to this system, all providing some degree of processing capability. The operation will be running on versions of the Linux operating systems running on clusters of Intel Corp. and Advanced Micro Devices Inc. processors.

Developing the grid involves a combination of efforts. In April, the LHC team conducted a test, distributing the data to 10 major sites at a total rate of 600Mbit/sec. Much of the work was "low level," says Hernandez, such as adjusting parameters of a network card and firewall configurations.

"It was important to prove that we can maintain the processes for an extended period . . . almost without human attendance," says Hernandez. This means ensuring that network interconnects are tuned and synchronized and that there's sufficient security and monitoring, as well as staffing and automation, at the respective data gathering sites, he says.

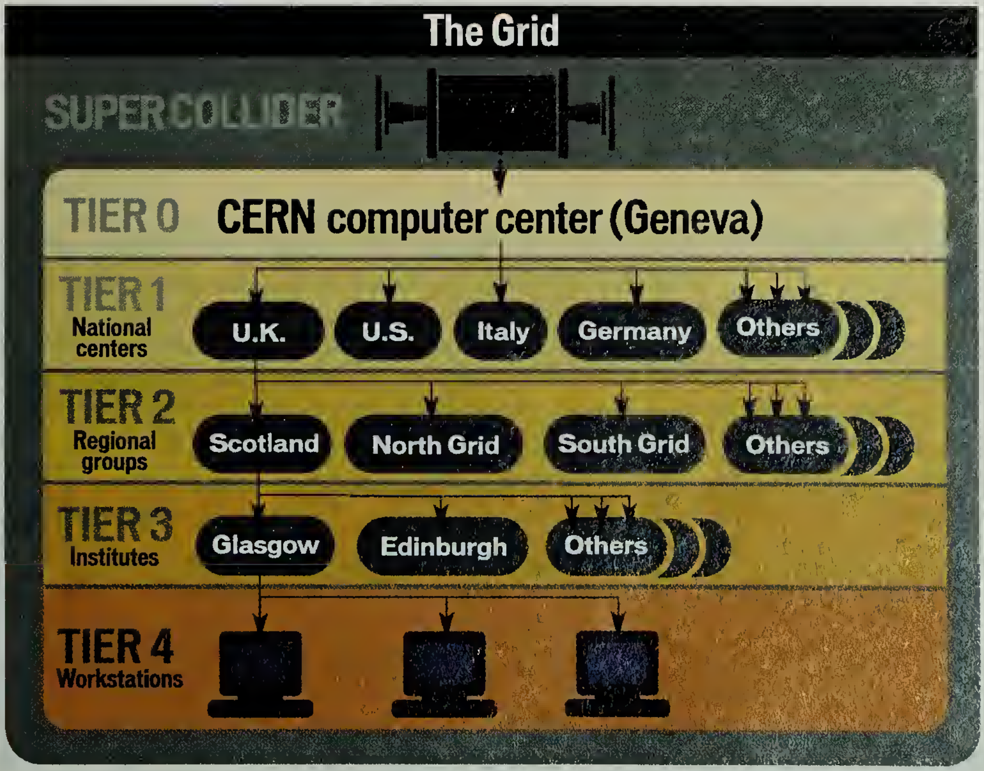
The more difficult aspect is providing simultaneous access to the data by as many as 1,000 physicists working around the world. "You cannot . . . predict what the users will want in any given moment," says Hernandez.

The site of the LARGE HADRON COLLIDER

One limiting factor that's getting a lot of attention from the approximately 100 developers working on the grid worldwide has been the capabilities of resource brokers — the middleware that submits the jobs and distributes the work. If the processing isn't effectively routed, databases can crash under heavy loads, says Doyle. There's also a need to ensure that the system has no single point of failure.

This involves keeping track of the data. The data could be in one place while the CPU resource capable of processing it is in another. Metadata, which describes what the data is about, will play a critical role. "These are some of the big challenges," says Doyle.

"The most important thing is to show that the grid model can be used to process real data in a scientific context — and data distributed all over the world," says Hernandez. "I think it's the most important lesson we are going to learn." 56649



Geek's Garden

A STROLL THROUGH THE TECHNOLOGY LANDSCAPE

The Typing Cure

In a survey of bloggers conducted by America Online Inc. in July, just 16% of the respondents said they blog because they're interested in journalism. Only 12% said they blog to break or stay ahead of the latest news and gossip, and just 8% said they blog to share political views.

It seems that many of the 600 bloggers surveyed keep their online journals for personal reasons – nearly 50% of the respondents said they write a blog because it serves as a form of self-therapy. Fifty-four percent said they like to share their thoughts and feelings with others, and 43% said they like to chronicle their life and interests. One-third of the bloggers said they most often write about self-help and self-esteem topics. Thirty-one percent said that in times of need or high anxiety, they turn to either writing in their blogs or reading the blogs of others who are discussing similar issues – that's six times the number of people who prefer to seek help and counseling from a professional (5%) and just one percentage point less than the 32% who said they seek advice from family and friends.

On average, survey respondents said they write and maintain two blogs. Consumer bloggers said they spend an average of four hours per week writing their blogs.

According to the Pew Internet & American Life Project, about 8 million Internet users said they have a created a blog, and according to a Technorati Inc. study, the number of blogs in existence doubles about every five months.

OF 600 BLOGGERS SURVEYED BY AMERICA ONLINE:

66% said they feel free to write on "anything and everything."

12% said they worry whether their blogs are funny and witty.

29% said they write blogs to improve their writing skills.

23% said they worry about offending people in their blogs.

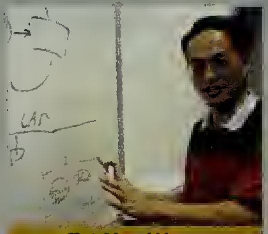
65% admitted to feeling disappointed when people post negative or abusive comments to their blogs.

GROVES OF ACADEME

Coffee Pots on The Internet

It's time to rethink how we control our homes and appliances, now that we live in the Internet Age, according to a University of Arizona professor.

"We now have high-end appliances that have powerful computers and are high-priced," says Fei-Yue Wang, a professor of systems and industrial engineering. "Upgrading is costly. But now that we are living in a connected world, we can have a connected lifestyle and much cheaper, more energy-efficient devices."


Fei-Yue Wang

Wang's idea is to connect inexpensive, reconfigurable, "dumb" appliances to a central operations center that provides "smart control agents" (autonomous software algorithms). Each appliance would have just enough memory space and processing power to host one or two control agents for specific functions.

Wang cites VCRs as an example. If a VCR was set to record, it would send a request to a central computer asking for the control agent that would do the recording at the speed the user specifies. When it was done recording, it would delete the control agent for recording and ask for a control agent that would rewind and play the tape.

By parsing the functions, the VCR would require much less computing power than it would need otherwise, and it could be upgraded with software. You probably wouldn't consider buying a new one unless there was a major hardware upgrade and the new model wasn't too expensive.

Wang envisions two central controllers – one in your house and another at the appliance company's headquarters.

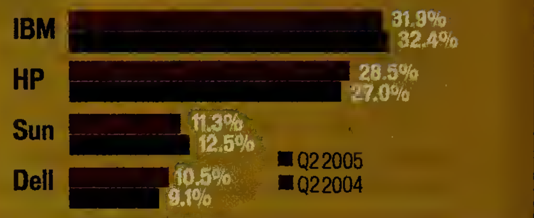
"The company headquarters will have a super operations center that will learn the habits from each individual house by various data mining techniques," he says. "It will know, for instance, what times of day you use your refrigerator and how often you open the door and how long you leave it open." That information will help in managing the energy efficiency, increasing performance and lowering cost, says Wang.

He also envisions control agents that are specifically configured for your needs. The company that produced the appliance or a third-party company could take the data from your household, design custom control agents and retrain your appliances via the Internet while you sleep.

Page compiled by Tommy Peterson.

SERVING ACES

TOP FOUR SERVER MAKERS' MARKET SHARE BY FACTORY REVENUE



SOURCE: IDC'S WORLDWIDE QUARTERLY SERVER TRACKER, AUGUST 2005

DIFFERENCE ENGINES

Computing Goes Electronic

The Electronic Numerical Integrator and Computer (ENIAC) was the first all-electronic computer. ENIAC was capable of being programmed through the rather cumbersome process of of rewiring. In that regard, it was less advanced than Konrad Zuse's Z3 (see QuickLink 56880), which had some mechanical parts but was fully programmable using paper tapes.

Furthermore, unlike the Z3 and most modern computers, ENIAC's registers performed decimal, rather than binary, arithmetic.

Researchers J. Presper Eckert and John William Mauchly at the University of Pennsylvania conceived and designed ENIAC in the early 1940s. It was then developed and built by the U.S. Army for its Ballistics Research Laboratory with the purpose of calculating ballistic firing tables. World War II ended before ENIAC was operational, but it was then used to perform calculations for the design of the hydrogen bomb, weather prediction, cosmic-ray analysis, thermal ignition, random number generation and wind-tunnel design.

Two technicians with ENIAC

ENIAC was enormous: It contained 17,468 vacuum tubes, 7,200 crystal diodes, 1,500 relays, 70,000 resistors, 10,000 capacitors and around 5 million hand-soldered joints. It weighed in at 27 tons, took up about 167 square meters of real estate and consumed 160 kilowatts of power – it reportedly made the lights go dim in Philadelphia each time it was powered up.

Input was possible from an IBM card reader, while an IBM card punch was used for output. These cards could be used to produce printed output off-line using an accounting machine like the IBM 405.

Mauchly and Eckert went on to design the Univac I (Universal Automatic Computer I), the first commercial computer made in the U.S. and the machine that raised popular awareness of computing power by predicting the outcome of the 1952 presidential election based on 1% of the vote. **57142**

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Quality of Life Influences Decision to Stay Put

Offers of big bucks and status arrived about the time that Hurricane Katrina hit, and our security manager found that drama of human suffering influential. By C.J. Kelly

SECURITY MANAGER'S JOURNAL

THERE ALWAYS comes a time in a security manager's life, and usually more than once or thrice, when she has to make a decision about whether to stay in her current job. That time just came my way, and I wouldn't have expected beforehand that I would end up turning down two six-figure jobs in a row to stay and work for one of my state's poorest agencies.

A lot of things influenced my decision, but the recent disasters wrought by hurricanes Katrina and Rita got me thinking a lot about life — the significance of it, the quality of it and the shortness of it.

Even though I am located far away from the Gulf Coast towns that were affected by those storms, I was glued to CNN's Web site during the day and its TV news channel during the evening. I had a hard time sleeping at night as my thoughts lingered on my husband, my children and grandchildren, my parents, my sisters and brothers, my aunts and uncles, great aunts, cousins and grandmother. Some of them live in South Florida or Texas, but fortunately, none of them was harmed during the recent hurricanes. They're all OK, but I'm still stressed out by the events.

It was in the midst of those weeks of restless nights and high emotional stress that I was contacted by a former employer who wanted me to come back to my old job. Then a local company that had happened upon my résumé got in touch with me. I even received an e-mail from a very large company in another state that wanted to talk to me about a director of security position with at least 100 direct reports.

These overtures were above and beyond the handful of e-mails I usually receive every week from various consulting companies inquiring about my availability. Those show up because I had formerly been an independent security consultant, and my résumé is still in a large number of company databases. From what I can see, the demand for security professionals is still very high and is seemingly climbing.

Meanwhile, in response to the hurricanes, the SANS Institute, working with the American Red Cross, put out a call for security volunteers. Most of the work was centered in our nation's capital. That's too far a commute for me to volunteer, but I signed up anyway, hoping that my talents could help in some capacity. I really wanted to make a difference amid all the human suffering brought on by those storms.

> **Once the decision was made, the energy I felt toward my existing job was amazing.**

So, that's where my head was at when I was faced with making a decision about my career. My mind may have been on overload, but I found myself thinking for the first time about putting my career on the back burner. I couldn't help but think about how valuable the time I have with my family is and how that time may be short. What good is money if you don't have the people you love or they don't have you?

Money vs. Stress

Some of you may be wondering what the conflict could have been. I've spent plenty of time in this column bemoaning the inadequate funds my agency is given to address some very pressing security issues. And yet here I was ignoring offers of better jobs with better pay and fewer budget constraints.

Here are my answers to myself: Information security professionals are in high demand, but the opportunities available to them often require extensive travel, 60-to-80-hour workweeks, high stress, high drama, tons of responsibility and always the fear of a major security breach that could affect the organization's stability and threaten your job. That's a lot of pressure. I used to be up for that, but not anymore. I want to sleep well at night without the aid of Ambien. I want to see my husband every night and talk to my children and greet my neighbors.

In my current job, I face the same technology challenges I've always dealt with in my career, but not on a grand scale and not on a time-to-market schedule. I still see the same security issues, such as analyzing output from the intrusion-detection system, making sure that all systems are patched and up to date, and enforcing policies and procedures. I just don't have jet lag and won't gain 10 pounds from eating out every day — and I get to sleep in my own bed at night. I'm slowly learning how to live on a much smaller salary, and every time I sit with my husband in the evening, sipping wine, talking and watching the sunset, I know I made the right decision to stay put.

Once the decision was made, the energy I felt toward my existing job was amazing. Saying no to those offers helped me put to rest my longing to return to the big bucks, the big title and the status that goes along with it. I embraced the projects on my desk with renewed enthusiasm: security awareness training, disaster recovery planning, IT security change control, VPN implementation, IDS expansion, upgrades of staff skills.

I had almost forgotten how much there is for me to do here. Security work, just like IT work, can go unnoticed. The saying goes something like this: "If nothing breaks, no one complains, and if nothing goes wrong, you know you are doing a hell of a job!" I can make this place better, and although I won't get a big fat paycheck and will be but a small fish in a large state pond, it doesn't matter to me. I have what I need in life: the people I love. I want to spend as much time as God gives me with them.

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "C.J. Kelly," whose name and employer have been disguised for obvious reasons. Contact her at mscjkelly@yahoo.com, or join the discussion in our forum: **QuickLink a1590**

To find a complete archive of our Security Manager's Journals, go online to **computerworld.com/secjournal**

SECURITY LOG

Kaspersky Products Hit by Security Bug

Kaspersky Lab in London has been hit by a security bug affecting a wide range of its antivirus products. The bug isn't limited to a particular platform and can be exploited through several common protocols to take over a protected system. The Kaspersky flaw is in an antivirus library used to parse cab files. It could be exploited via protocols such as SMTP, SMB, HTTP and FTP, according to an advisory. Products affected include Kaspersky antivirus 4.x and 5.x and Kaspersky SMTP-Gateway 5.x.

Phishers Can Now Be Sued in Calif.

Phishing is now a civil offense in California, and people can sue the senders of deceptive e-mails that try to steal personal data. Victims can seek to recover actual damages or $500,000 for each violation, whichever is greater. Bruce Schneier, chief technology officer at Counterpane Internet Security Inc. and a *Computerworld* columnist, called the law "a feel-good measure that's not going to have much actual effect." He said vendors should be held responsible for fraudulent transactions, "because they're the ones who can do something about the core problem."

Software Pirate Pleads Guilty

Li Chen has pleaded guilty to one count of copyright infringement and will pay $1,005,000 in restitution to Symantec Corp. and $95,000 to Microsoft Corp. for software piracy. Houston police and the FBI searched Chen's Houston business, Microsource International, last November. Besides the pirated software, they found documents showing that Chen had sold counterfeit Symantec products with a total retail value of over $9.9 million, Symantec said.

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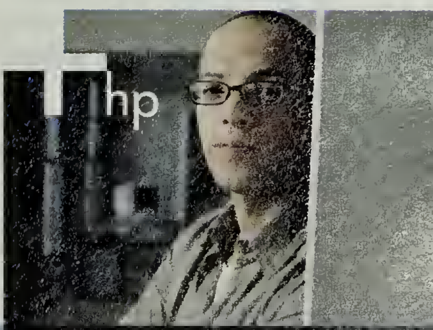

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BRIEFS

C/C++ Interpreter Tools Released

■ **SoftIntegration Inc. in Davis, Calif., has released its Ch 5.1 and Embedded Ch 5.1 C/C++ interpreter tools. The products let developers perform cross-platform scripting, 2-D and 3-D plotting, shell programming and embedded scripting, the company said. The Standard Edition of Ch 5.1 is available for Windows, Linux, Mac OS X, Solaris, HP-UX and FreeBSD as a free download; the Professional Edition starts at $399, and Embedded Ch 5.1 starts at $1,499 per operating system.**

Secure Calendaring, Mail App Launched

■ **Meeting Maker Inc. in Waltham, Mass., has launched its new Meeting Maker Mobile Powered by Intellisync application. It provides secure mobile calendaring and e-mail capabilities through a variety of mobile devices, according to the company. The product is available now at $100 per user for the standard version or $160 per user for the premium version, which connects to a Lotus Notes/Domino or Microsoft Exchange server. It can be used as an add-on module for the company's Millennium personal and group scheduling suite or as a stand-alone wireless e-mail and personal information manager product, Meeting Maker said.**

SAS Adds Support For Grid Computing

■ **SAS Institute Inc. announced plans to add support for grid computing to its SAS 9 business intelligence platform. The new features will allow SAS users to grid-enable multiple applications, including data mining and data integration, according to the company. The added support resulted from an expansion of SAS's partnership with Platform Computing Inc. SAS is also a member of IBM's Grid and Grow program. Pricing for the products varies by customer.**

CURT A. MONASH

Counterpunching in The DBMS2 Debate

RECENTLY, I'VE BEEN writing a great deal about data architectures for the future, often under the rubric of "DBMS2." This has ruffled some feathers, including those of database textbook author C.J. Date. Summarizing the whole debate in this limited space is hopeless, but here is a quick tour through some issues that traditional database experts seem to be overlooking.

CURT A. MONASH is a consultant in Acton, Mass., and also blogs regularly on *Computerworld.com*. You can reach him at **curtmonash@monash.com.**

1. Logical and physical modeling will never be completely separable. A DBMS is, first and foremost, an execution engine for Data Description Language/Data Manipulation Language. To say that logical modeling need not take performance into account is to say that DDL/DML programming need not take performance into account. Wrong. No matter how great your optimizing compiler is, you still can write a slow program; the same principle applies to DBMSs. Indeed, it's even more valid for data modeling than for some other kinds of programming. The higher the level your mistakes are, the harder it is for the optimizer to fix them — and little is higher level than database design.

2. "True relational" DBMSs are very unlikely ever to be practically useful, except perhaps in narrow niches. The gurus claim that a true relational DBMS would allow the complete separation of logical and physical modeling. But as noted above, that will never be practical, at least not in a broad-spectrum, industrial-strength product. Date's beloved "TransRelational" architecture doesn't magically invalidate this point. As for claims of "orders of magnitude" of performance improvement, even if they are true, benchmarks and prototypes are a far cry from versatile, industrial-strength reality.

3. Enterprises don't fully control their data models. A coherent, enterprisewide data model may be a wonderful idea, but it's not something you can implement with any precision — unless you get your whole company to run a single-vendor suite of applications, and perhaps not even then. Purchased apps — and acquired companies — mean that your data model is largely defined by other folks.

4. Duplicated data is not inherently bad. Some database gurus abhor duplicated data, based on the presumption that it is hard to keep this data consistent. Taken to the extreme, this would proscribe all of data warehousing. Most of the gurus know better than that, of course, and would quickly concede that read-only duplication is OK, if deployment economics demand it. Rather, what they deplore is duplicated data that is updated in two or more places. But haven't they ever heard of an index? Also, every DBMS maintains duplicate copies of data as part of its essential workings. Perhaps these are both contrived examples, but they serve to illustrate a key point: Duplicated data is bad only insofar as the effort to keep it consistent is burdensome.

5. Saying that the relational model (RM) is based on mathematics proves almost nothing. The oft-repeated mantra that the RM is based on 2,000-plus years of mathematics is ludicrously irrelevant — after all, the same claim could be made of astrology. Yes, the RM is based on formal logic and set theory, which are two intertwined branches of mathematics. And yes, because of the math, the RM ensures data integrity with relatively little programming effort. But ensuring data integrity is only one part of the programming challenge. You also have to create actual functionality and user interfaces, and the whole thing has to perform in real-world environments. To my knowledge, there has been very little in the way of theorem-proving that has shown the RM to necessarily be ideal for those aspects of the development task.

6. IT isn't just concerned with facts. The whole predicate-logic view of data management assumes that databases are merely collections of facts. Up to a point, that's indeed true. But the whole point of any nontrivial "analysis" is to produce conclusions that, while fact-based, aren't absolutely certain, and some of these conclusions should and do wind up right back in the database.

What's more, knowledge workers spend a large fraction of their time communicating in words, often by e-mail. They also read documents and create things. None of those activities are dominated by absolute facts in the same way that, for example, order entry is.

Summing up: Relational theory has its place. But taken to extremes, it's silly or even counterproductive. Indeed, your biggest data management problems going forward will probably be ones for which relational theory doesn't offer much help. **57274**

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MANAGEMENT

10.10.05

IT MENTOR
The End of Fairy Tale Beginnings
When key stakeholders act like ogres, your project suffers. Project management professional Thomas Cutting tells how to break the spell and get them on your side. **Page 40**

COMPUTERWORLD HONORS SPOTLIGHT
Relief for Nonprofit Supply Chains
Aidmatrix supply chain technology helps charitable organizations manage stocks of food, clothing and other supplies for people in need. **Page 42**

OPINION
Leveraging the Risk/Reward Contract
Managing risk/reward contracts requires extra effort and a new mind-set, says Bart Perkins, but the benefits are worth it. **Page 44**

7 Steps to a BUSINESS CASE

Accurately predicting the costs and benefits of IT initiatives is a critical skill. Here's how. By Mary K. Pratt

JAY ROLLINS wants to rein in unnecessary spending. He wants to leverage the size of his company to get better prices and services from vendors. And he wants to clearly articulate how technology projects help his company reach its strategic goals.

So Rollins, vice president of IT at Churchill Downs Inc. in Louisville, Ky., now requires business cases for proposed IT projects.

He says the requirement will help the company better analyze risks, predict successes and hold executives accountable. "I'm looking at it for the betterment of the business," Rollins says.

These days, IT and business executives are often asked to build business cases to justify technology initiatives, and many are making developing the business case part of their standard operating procedures.

"The CIOs I talk to are much more aware that IT is expensive, and if you're going to use it properly, you have to have a plan," says John Hummel, enterprise CIO and senior vice president of information systems at Sacramento-based Sutter Health, a nonprofit holding company for 65 heath care organizations.

Business managers normally take the lead in developing business cases for projects that benefit their departments, even though there may be a large IT component. But building a business case is a group effort, and IT leaders need to know how to contribute. Moreover, on certain projects such as infrastructure improvements that benefit the entire company, the business case may require an IT lead.

Crafting such formal analyses isn't easy, particularly for department leaders who are busy handling day-to-day operations. "It's very difficult to put together a good business case," says Christopher Kowalsky, senior vice president and CIO at Education Management Corp. in Pittsburgh, one of the country's largest providers of private postsecondary education.

It takes time and resources, a deep understanding of the technology and how to scale it, and a clear view of how the project meshes with other priorities in the organization, he says.

Here are seven steps that should help you efficiently build a solid business case:

JAMES O'BRIEN

1

Understand Your Business Goal

IT leaders say a strong business case forecasts costs and savings, details expected benefits and risks, and clearly shows how the proposed project fits with the organization's strategic vision. "You shouldn't think of [the project] as an IT improvement. You should be thinking of it as enhancing a business benefit: What benefits are you providing to the core function of the organization?" says Charles Maxson, CIO at Merrimack College in North Andover, Mass.

Hummel understands that his technology initiatives must pass a high bar to get the green light. After all, he says, they're competing for funding against requests to buy more patient beds or CAT-scan machines.

As a result, Hummel says, his business cases show how a technology project will improve patient care. "You have to build business cases that use language the other executives understand," he explains.

That's important because his cases go before an executive committee where the CEO, the chief operating officer and the chief medical officer, along with divisional and operational executives, decide whether to approve proposed projects.

2

Let the Numbers Talk

Start with numbers. Include project costs, ongoing maintenance expenses and estimated returns on investments, says Rebecca Wettemann, vice president of research at Nucleus Research Inc., a firm in Wellesley, Mass., that provides IT advisory and research services.

3

Present Various Scenarios

Gather the best available data on costs and benefits, and understand the data's accuracy and variability, Wettemann advises. "A lot of building business cases around ROI is, 'What do I expect and what's the worst-case scenario?' " she says.

Judith Spitz, senior vice president of network systems at Verizon Communications Inc. in New York, says she strives for business cases that show how a specific project will streamline processes, thereby saving money. She points to a business case for voice portals as an example. She calculated an ROI for the new automated system based on an estimated reduction of the number of calls handled by customer service representatives.

But many projects won't have benefits that are easy to quantify, experts say. Consider customer relationship management applications. How does a company accurately calculate additional sales stemming from an increase in customer satisfaction? In those cases, Wettemann says, estimate conservatively.

"One of the key things we talk about with CIOs is that building an effective business case has nothing to do with coming up with a perfect ROI," she explains. "It's really about structuring your evaluations with the costs and benefits so you can use those calculations to make a good business decision."

4

Consider Your Culture

Corporate culture affects what goes into a business case, how much detail is included, how long it is and who presents the case in what form and when. Some companies want just a few pages summarizing costs, returns, risks and benefits. Others want comprehensive reports and supporting documents along with oral presentations.

Even within the same company, different types of projects might call for different types of business cases. Ted Benham, vice president of IT at Jennmar Corp., a Pittsburgh-based company that provides ground-control technology for the mining and tunneling industry, developed a business case when his department wanted to upgrade the company's enterprise resource planning system.

The project required much more detail in the business case than was needed for another recent but smaller investment in business analytics software, he says. For example, the larger case not only addressed the financial information but also outlined the expected disruption to everyday operations.

5

Give Nonfinancials Their Due

While today's economy has companies placing more value on bottom-line benefits, experts say IT executives shouldn't ignore nonfinancial benefits in their business cases. In fact, some essential initiatives will have no financial benefits, such as software that helps a company comply with the requirements of the Sarbanes-Oxley Act. In that type of business case, the IT leader needs to explain the facts as part of the larger project analysis.

And leaders should apply the same principles to sell visionary ideas even if they can't quantify potential returns. "The more progressive and innovative companies understand that maybe 80% of the projects have to be financially driven and the other 20% could have a major strategic impact on the business," says Michael Cummins, CIO and clinical professor of management at the Georgia Institute of Technology College of Management. "You have to go beyond what the numbers show."

For example, Merrimack College is installing wireless capabilities as well as console PCs and multimedia in its facilities to create smart classrooms. These projects have significant one-time costs as well as maintenance costs going forward, Maxson says. But the business cases stressed that the technologies will help the college stay competitive.

6

Include Collateral Costs

Good business cases need to address implementation and long-term costs and foreseeable risks and benefits. But executives also need to address peripheral but still critical issues, experts say. They should detail how they'll train workers and promote the adoption of new technologies and processes, for example. And they should give an accurate estimate of customization costs — something that's often overlooked or underestimated.

7

Consult Business Partners

Successful managers call on other business executives when drafting business cases, and that goes for IT leaders as well. Wettemann says business folks write up cases for technology initiatives at some companies, while CIOs work with financial officers at other organizations. "It tends to be a team effort when it's most successful," she says.

Executives at Novell Inc. understand that, says CIO Debra Anderson.

10 Traps TO AVOID

Don't present initiatives as IT projects.

Instead, they're business initiatives that leverage technology.

Don't skimp on research.

Know the technology, the problems it can solve and its limits.

Don't speak in tech terms.

Use the language of the business.

Don't present only best-case scenarios.

Understand and explain the worst-case scenarios, too.

Don't overlook peripheral costs.

Activities like training need to be taken into account.

Don't forget to detail a project's expected disruption to regular operations.

Don't ignore nonfinancial benefits.

Don't go it alone.

Get executives from other departments to support your case.

Don't overanalyze.

It can lead to analysis paralysis.

Don't underestimate the power of enthusiasm when pitching your project.

– Mary K. Pratt

Anderson, who is based in Provo, Utah, works closely with other executives at the Waltham, Mass.-based company to build annual business plans that forecast projects three years out. "It's a great way to create linkage between my department and the overall company direction," she says.

Business cases need to clearly explain the business value of each initiative. They need to show how it aligns with the company's overall goals as well as with a business unit's objectives. And they have to demonstrate that the upgrades and new systems will truly improve how the company does business.

CIOs who are experienced in developing business cases say the process helps their companies prioritize IT projects alongside other departments' initiatives so that the company moves forward as a whole.

Q 56984

Pratt is a Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

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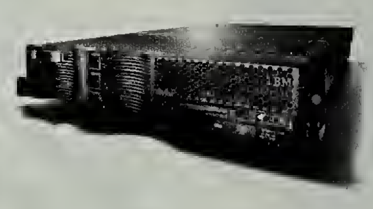

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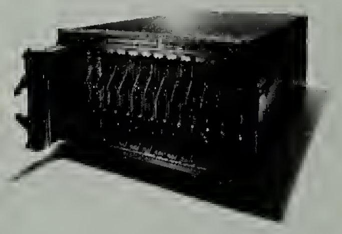

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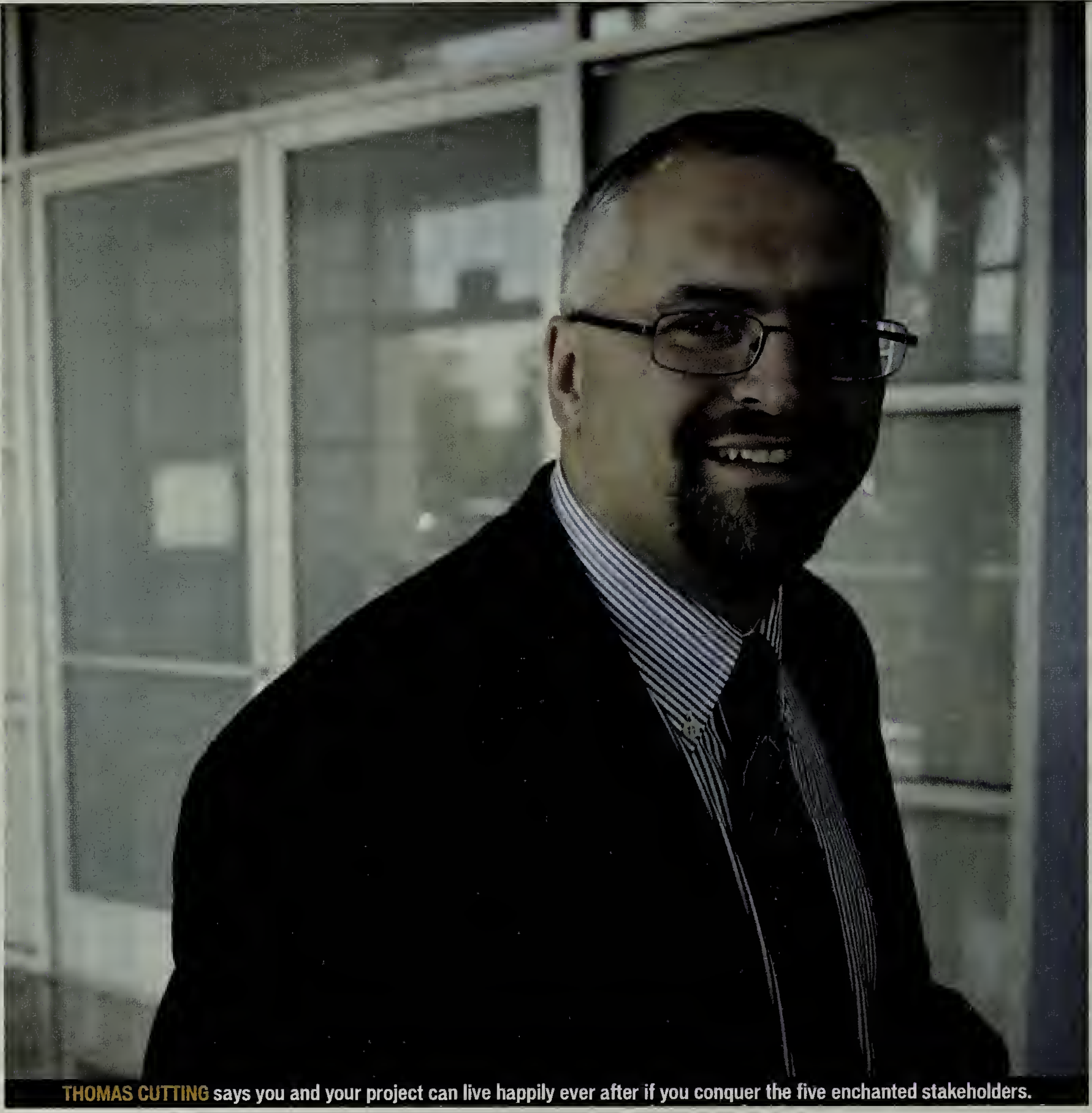


THOMAS CUTTING says you and your project can live happily ever after if you conquer the five enchanted stakeholders.

SETH JOEL

THE END Of Fairy Tale Beginnings

Spellbound stakeholders can chain your project to the dungeon of disaster. Here's how to lift the curse for a happily-ever-after ending.

By Thomas Cutting

IT MENTOR

"AND THEY ALL LIVED happily ever after." That's how fairy tales end. Unfortunately, IT projects are more likely to have fairy tale beginnings than endings.

As our story opens, the project is held captive by the wicked stepsponsor who doesn't care about you or the initiative. An overcommitted team lead is clearly bewitched, and an underproductive technical resource plays the role of ogre. Add an evil troll oversight manager and a gaggle of invisible users, and even Pixar would have a tough time managing a PG rating.

Riding his faithful steed, the project manager gallops in to save the day . . . and gets blindsided by the antagonists in the first act, destroying all hope for the project.

These characters aren't really villains; in fact, they're key stakeholders whose support is crucial to the success of your project. But they're spellbound by their current mind-sets. Unless you can cast a counterspell to disperse their negative energy, the risk to the project is overwhelming.

Here are some ways to identify enchanted stakeholders and release them and the project from almost certain doom.

The Wicked Stepsponsor

The sponsor's role is vital. He is expected to approve milestones, supply funding and run interference for the project. Either an ally or a foe is better than someone who lacks interest in the project entirely. If your sponsor acts as the project champion, you have to resist adding extras, but you can work with his energy. If he is against the project, help him identify the reasons it should be dropped instead of fighting a losing battle. If your sponsor isn't involved, however, the risk of not fulfilling the project objectives spikes. Watch out for any of the following signs of evil:

- Whenever your project is discussed, the sponsor switches the topic of conversation.
- Status meetings are regularly canceled.
- Funding for any other project pillages your budget.

But you can break through that cold exterior and engage the uninterested sponsor. Here's how:

Think like him. Understand his priorities, how he best receives information (e-mail, voice mail, face to face), his group's pressures and the direction in which he wants to move. This knowledge will increase the effectiveness of your communication.

Keep communications brief. News flash: Sponsors have a limited amount of time. Lengthy reports and e-mails get ignored. Tailor the status reports and use Gantt charts or graphs to communicate faster.

Determine and communicate project benefits. Projects are undertaken for a reason. What pain was this one intended to stop? Is it a regulatory requirement, or someone's pet idea? Quantifying the expected benefits allows the sponsor to weigh them against project costs. A simple projection of return on investment, focused on the sponsor's pressures and priorities, will communicate the benefits.

Create and articulate the goal. Using the identified benefits, create a short statement that explains what you plan to accomplish. A good example would be "to accept online purchases, reducing transaction fees and saving $100,000 annually." Equipping your teammates with a goal gives them focus and helps them articulate it.

The Troll Oversight Manager

You won't always be the lead manager, and unless you're a control freak, this shouldn't present a problem. Manage your resources and deliverables, and report progress to the manager who oversees the milestones and direction of the overall project. But he can conjure up trouble if he redirects your resources and efforts. Watch out for the following trollish tip-offs:

- He scrutinizes the schedule and accepts the activities and basis of estimate (BOE) yet demands a 10% cut.
- Instead of discussing progress, issues and risks, he drills immediately into the details of the data-mapping diagram.
- He redirects your resources to tasks outside your scope of effort.

Here's how you can charm the troll:

Discover why he needs control. Is he new to the role? Does he lack confidence in your abilities? Does he feel threatened? Knowing the cause of his anxiety will help you tailor your approach to increase his confidence in you and himself.

Be sure of your BOE and explain it. But don't get defensive; logical conversations spark enough arguments.

Create a detailed schedule. Incorporate the BOE in the schedule with comments on key activities or tasks. Use the 80-hour rule (assign resources only to tasks that require less than 80 hours of effort) to replace padding with realistic estimates.

Track actual hours and estimates to complete (ETC). Capture actual task-level hours and ETCs from the individuals who do the work. The team members can ignore your estimates, but if they determine the estimate, they own it.

Trolls, Ogres And Other Undesirables

Here's how this cast of characters looks in the real world:

The Uninterested Sponsor: Given the project but focused in a completely different direction.

The Controlling Oversight Manager: Should be at the 30,000-foot level but craves details. Thinks the project manager can't hack it and steps in to take over.

The Overcommitted Team Lead: Has his hand in every project. Loves to be involved in everything from architecture to coding but never has time for your project.

The Underproductive Technical Resource: Never on schedule. Always has a creative excuse but is like a dead weight on the project.

The Invisible Users: Don't want the project, assuming they even know about it. Although it will make their jobs easier, they are too swamped by their own priorities to participate.

– Thomas Cutting

Understand and articulate your status. Clearly communicating accomplishments, destination and direction diminishes the manager's need to step in.

Show some backbone. Heroes need to sound convincing. Be sure of your facts and speak confidently. If a question arises that you are unprepared to discuss, request time to research before answering.

The Bewitched Team Lead

He brilliantly designs solutions and finds flaws that could destroy system usability. Unfortunately, he can offer only a passing comment while dashing to his architecture review board meeting. Your project is low on his packed priority list. Signs of sorcery include the following:

- He is committed to every project conceived because he is the go-to person for the perfect solution.
- The one meeting of yours he attended ended with, "That won't work, let me get back to you."
- He still hasn't.

Here's how to break the spell:

Team an analyst with him. The analyst can meet one on one with him and be the project liaison, taking the team lead's ideas and driving them to completion. This reduces dependency on the team lead while developing other people's skills.

Determine the priorities of all projects. Yours may still be the lowest one on the list, but by officially declaring that, you can set stakeholder expectations. You may even be able to convince your formerly uninterested sponsor to raise the status of the project.

The Technical Resource Ogre

To compensate for the overactive team lead, you have the company's least productive resource. His defense for surfing the Web is that the project manager hasn't assigned him enough work. Your challenge is to make him contribute. Here's how you can recognize the ogre:

- Everything he delivers is late but accompanied with very creative excuses.
- He requires help to complete assignments but seldom asks for it before it's too late.
- Whatever he delivers has bugs.

Your own incantations can light a fire under the unproductive technical resource. Here's how:

Find out why he is unproductive. Does the ogre need training? Has he been promoted over his head? Is he overcommitted or being subjected to outside influences? Many causes have relatively simple solutions. Resolve the problems, and you may gain a loyal, valuable asset.

Mandate status reports. The simple act of reporting accomplishments each week will illuminate his lack of effort. It won't be long before he realizes it and starts asking for more work.

Reduce dependency on him. Sometimes it isn't feasible to reform a poor performer, and it may be necessary to work with your human resources department to remove him.

The Vanishing Users

Sometimes users just disappear. They may be content with the current system. Change may require more work or, worse, the new system may replace them. Sometimes they are not informed of the change and are not involved in defining the solution. Here are the traits that can render users invisible:

- They don't want any change. Who needs central heating when you can rely on dragon's breath?
- There are still problems and discontent from the last upgrade.
- They're sure they could design a better system themselves.

But you can get invisible users to show themselves.

Identify the users and get to know them. Without understanding the users of the product, you can't deliver anything useful.

Include them in the kickoff meeting. If you have already had it without them, schedule another one. Involve them in the process. Let them show you how to improve their lives. Great enhancements come from users, and their involvement will reduce the learning curve.

Set expectations. Expectations define the standard for project success. If users set their own, you will inevitably fall short. Work with them to weigh their expectations against your requirements, budget and schedule.

You will face other perils in your epic journey to project excellence, but if these five are aligned against your initiative, they will kill it every time. If you use these suggestions to combat the wizardry, however, there's a good chance that you and everyone else will live happily ever after. **56982**

Cutting is a project management professional and senior principal consultant at Keane Inc. in Cypress, Calif. Contact him at Thomas.Cutting@keane.com.

Relief FOR NONPROFIT SUPPLY CHAINS

Aidmatrix technology helps charitable organizations better manage stocks of food, clothing and other supplies for people in need. **BY MARY K. PRATT**

AT A GLANCE

Aidmatrix Foundation Inc.

WHO THEY ARE: A Dallas-based nonprofit that develops Internet-based software to help other nonprofits deliver food and clothing, as well as building, medical and educational supplies.

EMPLOYEES: 11, most of whom previously worked at i2 Technologies.

BUDGET: About $1.4 million annually, most of which comes from grants and donations. Receives another $3 million to $5 million in donated products and services annually.

BACK IN 2000, JAN PRUITT, CEO of the North Texas Food Bank in Dallas, was well aware that she was having problems with the agency's supply management system. But she also knew that she didn't have the resources to buy and manage commercial software to correct the inefficiencies.

"We knew it was out of our budget," says Pruitt. "We don't spend money on those things when we can spend our money on a tractor-trailer full of peanut butter."

Her dilemma didn't go unnoticed.

In fact, the food bank's supply system would become the proving ground for a new idea being developed across town. That same year, the nonprofit Aidmatrix Foundation Inc., also based in Dallas, was just getting off the ground.

An offshoot of i2 Technologies Inc., a for-profit maker of supply chain management technology, Aidmatrix had a goal to develop Internet-based software to help humanitarian organizations better manage their supplies. It all began when a new i2 employee who had worked with relief efforts in war-torn Kosovo e-mailed the company's president and founder, Sanjiv Sidhu, alerting him that i2's products could have a significant effect on relief work.

Sidhu decided to work with an employee charitable organization, the i2Foundation, to develop the idea. Foundation members picked the North Texas Food Bank to test the concept, says Keith R. Thode, Aidmatrix's chief operating officer.

Working with unlimited licenses for i2's TradeMatrix platform, foundation workers built the Online Agency Ordering program for the North Texas Food Bank, which went live with it in 2001. The system allows the homeless shelters, women's shelters, after-school programs and food pantries that get supplies from the food bank to view inventory lists and order online.

"The technology and the willingness of Aidmatrix is making food banking an entirely different industry than it would have been," Pruitt says.

The cost of getting that first system up was about $1 million, excluding the value of the donated licenses, Thode says. The i2Foundation and the group's founder and CEO, Lekha Singh, underwrote the cost.

Although Pruitt hasn't calculated how much the system has saved, Aidmatrix has statistics showing a 50% increase in agency order-fill rates, a 10% reduction in agency spending for supplemental purchases and a 10% reduction in administrative costs for the North Texas Food Bank.

"This kind of technology can really increase the greater good," says Mark Hillman, a senior research analyst at AMR Research Inc. in Boston.

Filling an Urgent Need

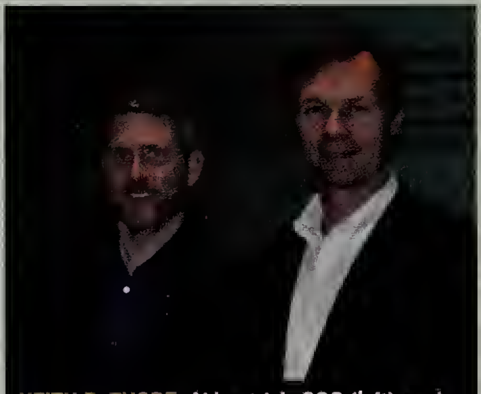
Other organizations have had similar success with Aidmatrix software. The Washington-based National Association of Free Clinics started using Aidmatrix's Free Clinic Link to help distribute donated and discounted medical supplies to its members.

Although the amount of materials moving through the system is still small, Executive Director Bonnie Beavers says one clinic saved enough on one order to pay for its annual association dues. And she says the system has freed up her time to pursue higher-level tasks, such as lobbying lawmakers.

Aidmatrix, which split from the i2Foundation in 2004, has expanded dramatically in the past four years. It developed platforms for charities working for hunger, medical and disaster relief. Thode says its inventory control system for disaster relief is undergoing its first live test, as Adventist Community Services uses the program in Gulf Coast relief efforts.

Aidmatrix also built the Virtual Aid Drive, an Internet-based tool that allows companies to collect donations online. Thode says numerous companies are now using it to raise money for Hurricane Katrina relief efforts.

COMPUTERWORLD HONORS SPOTLIGHT



KEITH R. THODE, Aidmatrix's COO (left), and former Wisconsin Governor and Aidmatrix President and CEO **SCOTT McCALLUM**

Challenges still remain, however.

One is "getting the clients to understand what we're trying to do for them," says Aidmatrix program manager David Natali. Nonprofit officials tend to be less familiar with supply management best practices than their for-profit counterparts, so Aidmatrix workers teach them efficient processes along with the technology.

Funding is another big challenge, according to Aidmatrix President and CEO Scott McCallum. A former governor of Wisconsin, McCallum says he wants to continue raising money from donations and from corporations that realize tax benefits by giving to charities through Aidmatrix projects.

He credits his staff for finding ways to bring efficient technology to charities worldwide. "To make an operation like this to work, you really do need high-quality, dedicated staff," McCallum says. "We have people who have made a career decision to help people, and they're doing it with their expertise and technology." **56753**

Pratt is a Computerworld *contributing writer in Waltham, Mass. Contact her at marykpratt@verizon.net.*

TRAINING THE TRAINERS

FROM THE START, Aidmatrix officials knew they couldn't just hand out i2's commercial products to nonprofits and expect them to work.

"These solutions are still highly complex to configure. It required very specialized skills," says Keith R. Thode, Aidmatrix's chief operating officer. Most nonprofits don't have the skills to manage the commercial systems.

And Aidmatrix officials knew they had to learn from the nonprofits they wanted to serve. Thode says the North Texas Food Bank staff helped teach Aidmatrix staffers and volunteers about nonprofits' structure, culture and processes as well as the regulations that govern them – all of which allowed Aidmatrix to customize user-friendly technology that was "audience-appropriate."

"It was a real partnership," Thode says.

Aidmatrix workers also adopted a "train the trainers" system to ensure that their nonprofit clients would benefit from the technology, Thode says. Aidmatrix worked with America's Second Harvest – the Nation's Food Bank Network in Chicago to develop the Choice System, software that allows food banks to pull donated products from a shared system based on their needs. As part of this summer's rollout, Aidmatrix trained agency staffers who can now work with the 235 food banks within its network.

– Mary K. Pratt

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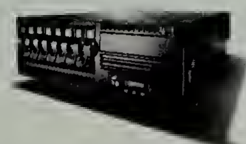

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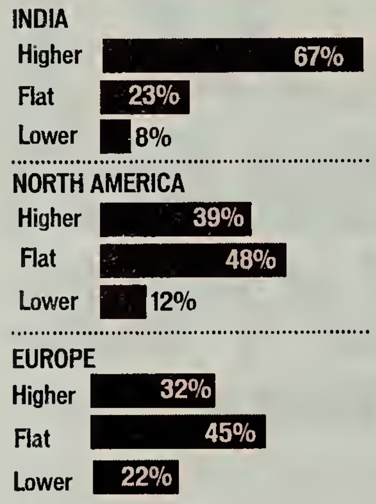
QUICK HITS

How India Stacks Up

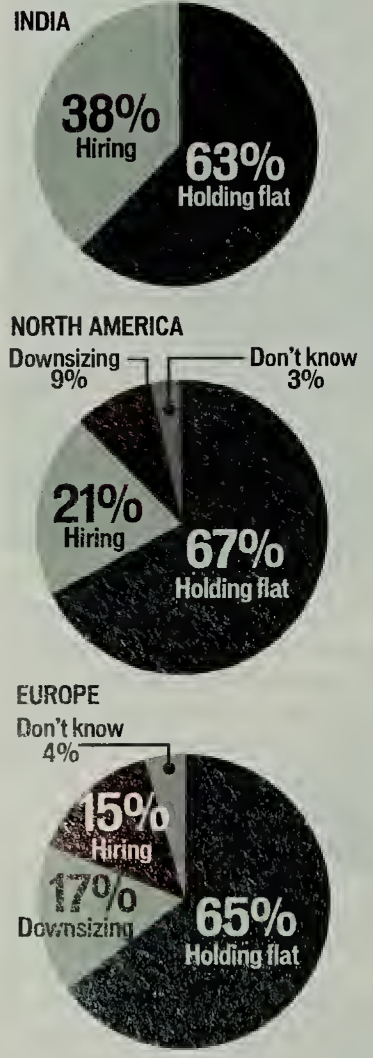
How does your company's 2005 budget compare with its actual spend in 2004?



BASE: 48 Indian, 613 North American and 383 European IT decision-makers

Note: Percentages may not equal 100 due to rounding.

Which of the following best describes the current status of your full-time IT staff?



BASE: 48 Indian, 613 North American and 383 European IT decision-makers

Note: Percentages may not equal 100 due to rounding.

SOURCE: Forrester Research Inc., Cambridge, Mass., August 2005

BART PERKINS

Leveraging the Risk/Reward Contract

RISK/REWARD CONTRACTS are highly specialized and require careful and creative management. They take extra time and effort to construct [QuickLink 46411], but in the right circumstances, they can provide benefits that more than compensate for that additional effort. These contracts motivate suppliers, through substantial penalties and incentives, to achieve your desired results faster and more effectively.

BART PERKINS is managing partner at Louisville, Ky.-based Leverage Partners Inc., which helps organizations invest well in IT. He was previously CIO at Tricon Global Restaurants Inc. and Dole Food Co. Contact him at **BartPerkins@LeveragePartners.com.**

As an example, the 1994 Northridge earthquake destroyed significant portions of the Santa Monica freeway. The damage increased travel time for some commuters by more than two hours one way. The California Department of Transportation (Caltrans) created a risk/reward contract to speed the reconstruction effort.

The contract specified a penalty of $200,000 for every day the freeway remained closed past the 140 days that Caltrans engineers estimated it would take to rebuild the road. This was balanced by an incentive of $200,000 for every day the freeway was opened ahead of schedule. The result was that the freeway was reopened in a record 66 days, earning the construction firm a bonus of $14.8 million.

Managing risk/reward contracts often presents special challenges that demand a creative approach to project management. If you have signed such a contract, consider the following tips:

- **Give your supplier enough control to be successful.** Remove as much bureaucracy as possible by providing creative solutions to common project roadblocks. As part of the Northridge reconstruction, for example, Caltrans arranged to have inspectors from the Federal Highway Administration available around the clock. As soon as a piece of work was completed, the inspectors approved the work and the construction company was able to move immediately to the next task. Removing the normal inspection delays greatly reduced the total construction time.
- **Communicate project benefits continually.** It's critical to keep perceptions aligned when large incentive payments are involved. Otherwise, some people may perceive the incentives as unfair once the project is complete. For example, before the reconstruction of the Santa Monica freeway started, Caltrans calculated the cost of the closed freeway at $400,000 per day. But when the bonus was paid, a number of groups complained about the "excess profits" the construction firm received. Caltrans defended its supplier and said it was glad to see the contractors receive the deserved incentive payments. If your supplier meets the criteria for incentive fees, pay the bonus as agreed; don't quibble or whine. After all, you received the benefit specified in the initial contract.
- **Review metrics regularly.** Don't wait until incentive payments are due to discover that you have differing perceptions of success. Review metrics with your supplier on a continual basis.
- **Share data freely.** This may be uncomfortable for both parties, but it's often necessary to ensure proper payments. For example, measuring the benefits of a new inventory management system may require sharing some information that's normally closely guarded, such as inventory volumes, costs or turns. Similarly, the operator of an outsourced server center may be uncomfortable disclosing the current cost of its servers, since risk/reward contracts often have provisions to share savings resulting from reduced costs of hardware, software or telecommunications.
- **Align HR practices with project goals.** If your supplier plans on paying incentives to its staff, be prepared to pay equivalent bonuses to any members of your staff who will work closely with the supplier and perform similar jobs. It may require a special exemption from human resources if your company doesn't normally pay bonuses to employees below a certain level. This won't be a concern in the case of wholly outsourced functions, but it will need to be considered in highly interactive projects that are jointly executed.
- **Don't be overly legalistic.** Create a relationship with your supplier that fosters trust and cooperation. Risk/reward contracts work best when the two parties share a high degree of trust and a common goal — yours! Be prepared to be flexible in order to achieve your desired results.

Risk/reward contracts add an extra dimension to all aspects of project management. In return, these contracts allow you to leverage the skills of your suppliers effectively while requiring them to share your risk. Use risk/reward agreements to align your suppliers' goals with your own and motivate the suppliers to outperform the terms of their contracts. **56946**

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Synerzy Software Solutions Inc., needs Computer Software Engr w/exp in SAP , SAP BW and EP6.0, BaaN, databases and unix. Analyze, design, implement and troubleshoot in above areas and SAP FI, SD, MM. Experience in SAP Security. Preferably Certifications in above areas. BS or BE or Equaling Degree plus 5 yrs exp req'd depending upon the position. For some positions we also accept any suitable comb. of education & exp. Frequent travel and/or relocation required. Send resume & salary req. to HR Manager, Synerzy Software Solutions Inc, 1 Austin Ave, 2nd Floor, Iselin, NJ 08830 or jobs@synerzy.com.

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Principal Solutions Architect needed by Momentum Software Inc. of Austin, TX (job requires travel to various client sites within USA). Responsible for implementation of SAP NetWeaver and ESA adoption programs and the development of supply chain applications on SAP web application server. Requires Masters degree in Applied Computer Science and 3 yrs exp in development of supply chain applications on SAP web application server. To apply, mail resume to Melissa Dean, Momentum Software, 4515 Seton Center Parkway, Austin, TX 78759. Refer to Job #15-J.

Programmer Analysts sought on an ongoing basis for projects throughout the U.S., will specialize in SAP, Oracle, or other technologies and disciplines, to develop, create, modify and implement computer systems, application software and specialized utility programs to meet client needs. Excellent benefits and salary commensurate with experience. Send resume to: Recruitment Coordinator, Ref. Code 0302, 4400 Campbells Run Road, Pittsburgh, PA 15205; EEO/AAP/M/F/V/H.

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Systems Analyst/ Programmer

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Virtualization

change," he said.

Armstrong said the new provision won't necessarily lead him to run SQL Server on machines that are equipped with VMware's ESX software, since virtualization doesn't work well for highly transactional databases and other CPU-intensive workloads. But the modified licensing might provide a way to reduce hardware costs on small, nontransactional database servers, he added.

Alvin Park, an analyst at Gartner Inc., said vendors have largely been applying old licensing models to virtualization software, often leaving customers confused about what they need to buy. Microsoft is stepping to the forefront in announcing new licensing policies for virtualized software, he added.

Variable Benefits

But there are cases where companies could wind up paying more money under the new model, Park said. For example, if a user runs six virtual instances of a product such as BizTalk Server on a four-processor box, it would have to pay for six BizTalk licenses. Under Microsoft's existing licensing policy, the maximum number of licenses that a customer has to buy for one application is equivalent to the total number of processors in the box, Park said.

Microsoft struggled with that fact, said Zane Adam, a director of marketing in the company's Windows Server group. But, he added, it's unlikely that a customer would slice up a box to the level envisioned by Park with a mission-critical application.

The new licensing options are due to become available Dec. 1. Another tweak being announced by Microsoft will let users run up to four virtual instances of the upcoming "R2" Enterprise Edition of Windows Server 2003 on one physical server for the cost of a single instance. If they use Virtual Server or VMware's GSX software, the R2 host operating system is included as well, Adam said.

Adam acknowledged that most customers now run the standard edition of Windows Server 2003. But he said he thinks that they will increasingly consider the more scalable Enterprise Edition as they move to heavier processing workloads and seek out the fail-over and clustering capabilities that come with that version.

In addition, in some cases Microsoft's new licensing policy could enable users that virtualize servers to upgrade to the R2 Enterprise Edition for roughly the same price they would have to pay to buy four Standard Edition licenses.

Armstrong said that all of the Windows guest operating systems on his ESX-based servers are Standard Edition and that he doesn't expect to switch to R2 Enterprise Edition. "The training and support and administration that go into the enterprise edition of Windows is beyond what we want to scale up for," he said. "It's not a strategic path for us."

But Michael Brown, a support services manager at Denver Health and Hospitals Authority Inc., said the licensing change might cause him to look at R2 Enterprise Edition. All of the 25 Windows guest operating systems that Denver Health currently runs on computers with Microsoft's Virtual Server are Standard Edition, according to Brown. The host is Enterprise Edition. **57360**

Other Licensing Changes

- Licenses for the Windows Server "Longhorn" Datacenter Edition, due in 2007, will give users the right to run an unlimited number of virtual instances on one physical server.
- Users will no longer have to license every inactive or stored virtual instance of a Windows Server System product. They can create unlimited instances and pay only for the maximum number running at any given time.
- Users can move active instances of a Windows Server System product from one licensed server to another within 90 days of the last reassignment, as long as both physical servers are licensed for the software.

Japanese Bank Expects Server Consolidation to Save It Millions

Virtualization helps Sumitomo Mitsui reduce total number of physical servers

BY LUCAS MEARIAN

Sumitomo Mitsui Banking Corp. has consolidated 149 of its physical servers into 14 blade servers, an effort that IT officials expect will save the company millions of dollars over the next three years.

Sumitomo's IT operation began evaluating options for updating its servers in January of this year, said John Premus, chief technology officer at Japanese Research Institute America, the IT arm of the Tokyo-based bank.

The New York-based IT unit needed to reduce the complexity of its server environment, increase utilization and lower operational costs, Premus said.

In order to determine whether to virtualize the servers, IT personnel calculated the cost of replacing the existing systems.

Premus looked at the cost of new hardware, software and maintenance. "We used our actual cost for floor space and [for] power and cooling, and used a number for labor costs to build a new physical server [network]," he said.

Premus decided to virtualize servers with 30% CPU utilization rates or less. The IT group initially found that 136 of the 222 servers in the U.S. were good candidates to become virtual servers. Since then, that total has grown to 149.

In February, Sumitomo installed an IBM blade server rack and connected it to its back-end storage-area network. Over the next three months, Premus rolled out VMware Inc.'s virtualization software on the blade servers and eventually created 216 virtual servers on 14 physical blade servers. Those systems replaced the 149 servers.

Dan Kusnetzky, an analyst at IDC in Framingham, Mass., said the number of consolidation projects like the one at Sumitomo Mitsui is growing at a rapid clip.

The virtualization market as a whole totaled about $19.2 billion in 2004, Kusnetzky said, with virtual machine software accounting for $330 million of that amount. Sales of such software grew by 62% last year, he said.

Kusnetzky warned that as the demand for virtual servers grows, IT executives should make sure that their virtual environments actually simplify operations.

"The issue is that as you move to a consolidated environment, one must be very careful not to replace physical complexity with virtual complexity," Kusnetzky said.

Premus agreed, saying that virtual "server sprawl" — adding servers whether they are needed or not — is just as much of a problem in a virtual environment as it is in a physical server environment. "It's become too easy to provision servers. I don't know if it's a good problem to have or a bad one. Before, it took us three to five days to provision one server. Now [we] can do 15 to 20 servers in 15 minutes," he said.

Premus said he hasn't increased CPU utilization as much as expected — most systems are topping out at 40%.

Nonetheless, he said that the low utilization rates haven't been a problem, because the additional CPU cycles are used for business continuity and disaster recovery operations. He noted that VMware's VMotion migration software can re-create an instance of a blade if another one fails, without disrupting applications. **57370**

Server Consolidation Project

- **149** physical servers were consolidated into **14** blade servers running VMware.
- Up to **23** virtual servers are running on the single blades.
- Most blades are running at less than **40%** CPU utilization.
- 15 to 20 virtual servers can be provisioned in **15** minutes; one physical server took up to five days.
- If a blade **fails**, another can be brought online without disrupting applications.

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FRANK HAYES ▪ FRANKLY SPEAKING

IT: No Excuses

LAST MONTH, writing about the devastation of Hurricane Katrina, I said in passing, "Thousands of people are dead or dying" [QuickLink 56681]. One reader wrote to object that he couldn't believe anything else I said in that column, since I led off with an "obvious falsehood"; at the time, there were fewer than 700 confirmed dead.

Last week, they stopped actively looking for Katrina's dead. The confirmed death toll: just over 1,200 people. I'm glad to report I was wrong: It wasn't "thousands." Do I regret the error? I just wish my estimate was completely wrong, and the death toll was zero.

Now let's cut through the self-righteous silliness, shall we?

Much of the mail I got after that column was about politics. Those readers thought it was a political attack on the Bush administration. Some approved. Others disapproved. They were all wrong.

It wasn't about politics. It was about IT people, and how we should respond when we screw up. That response should never be denial, or excuses, or a shuck and jive. And sometimes when our screw-up hurts people, it should be shame.

One of the first messages was from an IT guy at FEMA, who couldn't find the error page I mentioned ("In order to use this site, you must have JavaScript Enabled and Internet Explorer Version 6 . . . ."). I sent back a walk-through of how I got the error.

He thanked me and then explained how the IE 6-only site came to be: It was a project in its early stages that was kicked into high gear after 2004's four Florida hurricanes. It took a huge effort and required endless bureaucratic hassles to get every word appearing on the site approved. And when push came to shove, the site had to go live with only IE 6 support.

In other words, FEMA's IT people knew the site wasn't everything it should be. They had to choose between an aggravatingly not-good-enough site or no site at all. And they weren't happy about having to make that choice.

I think they were right — both in the choice they made, and in being unhappy with that choice. I'm sorry I assumed they were callous. They weren't. They were just stuck with a bad situation, and their time and luck ran out.

And I'm glad they've made progress in fixing *disasteraid.fema.gov*. Today, the site works with multiple PC browsers, though not yet with Web-enabled cell phones. It was wrong, but now FEMA's IT people are doing their best to make it right.

End of story? I wish it was.

I also heard from readers with horror stories. Some were about FEMA and Katrina. Others were about other government agencies, commercial services and private companies that left people stranded — in some cases literally — because of online systems that required particular browsers, particular platforms or particular features.

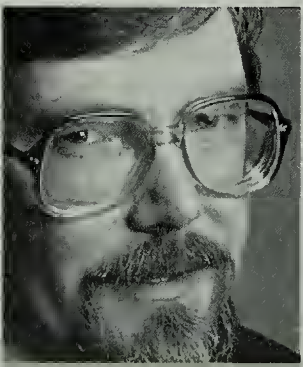
Their reactions ranged from annoyance to fury. They didn't know why they'd been inconvenienced or put in danger — whether because of IT underfunding or bureaucratic fumbling or sloppiness or callousness or incompetence. But they knew who they blamed. IT did this to them.

It's not just a FEMA problem. It never was. Once, IT was in the back room. If our systems failed, other employees still sat between us and the outside world, covering for us.

But now our systems touch people directly. We touch their lives. They depend on us, and on the software, networks and servers we create and support. That means if we get it wrong, we can do real damage to our business's reputation, to the bottom line — and to other people's lives.

We can't afford to forget that. And we can't afford to hide behind excuses, politics or denial. When our systems fail to do the job, our job is to make that right.

To do anything else would be a real shame. 57329



FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at frank_hayes@computerworld.com.

Anger Management

This branch office manager has a nasty habit of hitting the speakerphone's mute button when he gets angry during meetings. "He'd then hop up and down, cursing a blue streak," says a pilot fish who's seen it. "Then one meeting, the videoconference room was the only room available. Once again he got angry, hit the mute button and hopped up and down cursing a blue streak. It took almost a full minute before one of his employees got his attention and pointed to the monitor. The headquarters attendees were all staring open-mouthed at him. He recovered very quickly – and he never booked the videoconference room again."

SHARK TANK

Just Like You Asked

This pilot fish regularly receives lists of usernames and IDs to add to a system, so he lays down the law: All requests must be in a spreadsheet attached to an e-mail, not as text or a voice mail. "One person started sending me blank e-mails with attached spreadsheets for every single communication," fish reports. "She was writing all her messages on the spreadsheets and attaching them to the e-mail."

There It Is!

Sales VP calls support pilot fish late one afternoon. He's just returned from a long sales trip. Now he's at home and wants to remote-control his office laptop from his home PC to catch up on e-mail, but for some reason he can't connect. A quick check shows the laptop isn't attached to the network, and fish fears it may have been stolen from the office while the VP was gone. Do you know where your laptop is? fish asks. VP: "Yes, it's in its carrying case in the other room. I had it with me on my trip. . . . Oh, oops, ah, never mind."

All Charged Up

Help desk gets a call: "User's network charge card has expired, and she needs more minutes." Huh? "When I got on-site, I found her network interface card was dead," says support pilot fish. "After I changed out the card, she came into the office and asked me if I had recharged her card for minutes. I told her, 'Yup, you should have enough access time for another year.' "

Update Time

PC support pilot fish is filling in for a netadmin at a remote site and wants to confirm the backup procedures. "After talking to a half-dozen people, I obtain the key to the administrator's office, the combination to the fireproof safe and the key to the lockbox inside the safe," says fish. "There I find the backup plan. I brush the dust off a faded folder titled 'IBM Mainframe and Punchcard Storage Procedure.' "

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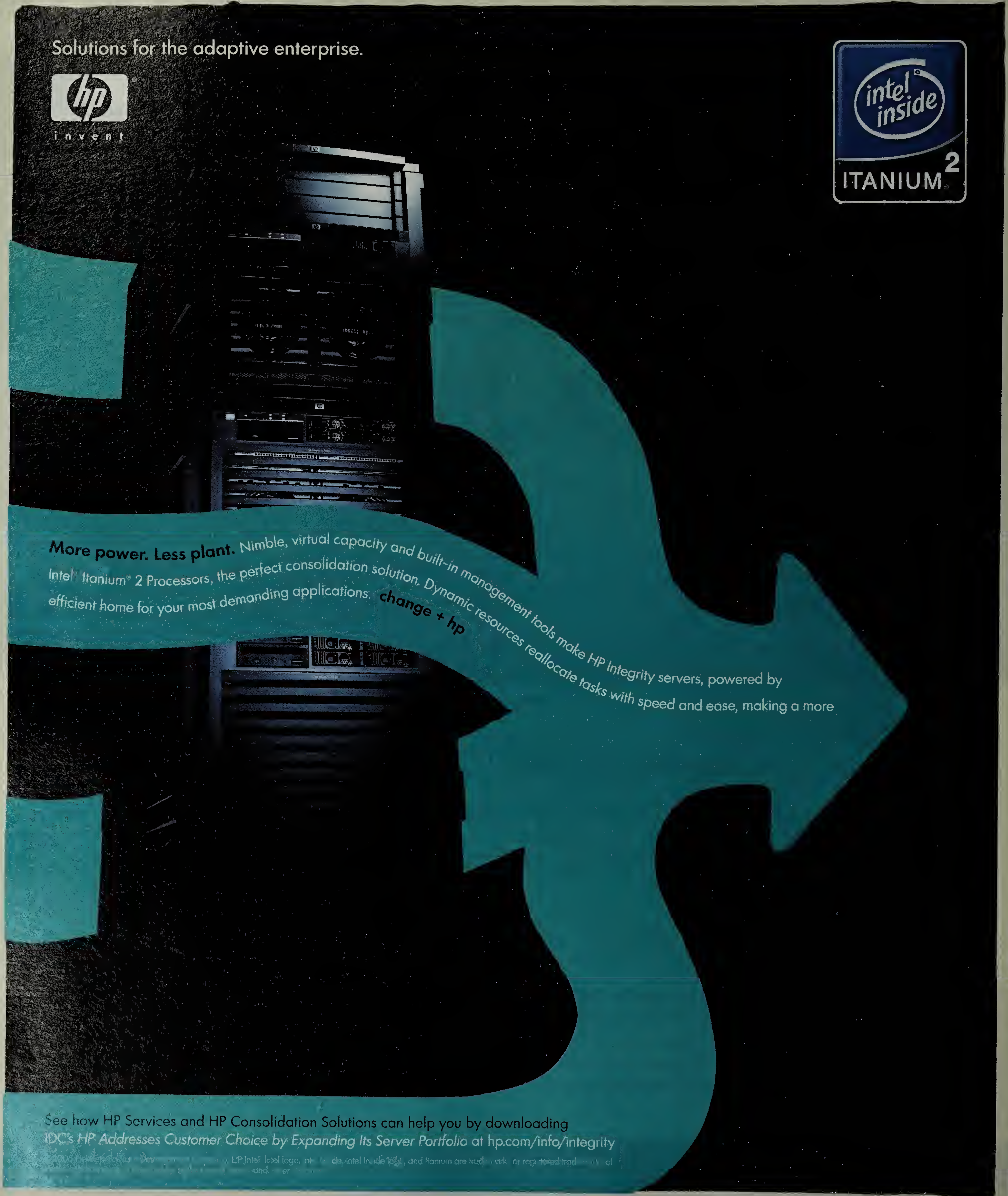

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